# Policy 4336, West School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses Executive Summary

# West Virginia Department of Education Office of School Facilities and Transportation

Policy Cycle:	⋈ 30 day Comment Period		☐ Adoption of Policy	
Policy Process:	☐ Revision	⊠ Repeal and Replace	□ New	
recommended for	or repeal and re		portation Policy and Procedures Manual, is , West Virginia Minimum Requirements for epeal.	
developments. In and Transportation inspectors, coun Original Equipments been incorporated.	Revisions are rection with the assinty maintenance and Manufacture brated by referenthool Bus Transpo	commended by the Executive istance and cooperation of a personnel, representatives rs (OEM). The policy has been been but to the incorporation	current federal standards and technological re Director of the Office of School Facilities county transportation directors, school buse from manufacturers of school buses and en reorganized and reformatted; Policy 4334 n of Policy 4334, Policy 4336 is being retitled dures, and Specifications for the Design and	
			sportation services for students and bring or Vehicle Safety Standards.	
		public comment ith effective date of	/20	

# Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses List of Stakeholders

# **West Virginia Department of Education**

# **External Stakeholders**

- Larry Fowler, Matheny Motors, Thomas Bus Sales
- Jeff Pschirer, Bluebird Bus Sales
- Matt Cochran, Worldwide Equipment, IC Bus Sales
- Kelly Spires, Specifications Coordinator, Bluebird Bus
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# TITLE 126 LEGISLATIVE RULE BOARD OF EDUCATION

#### **SERIES 92**

# WEST VIRGINIA SCHOOL BUS TRANSPORTATION REGULATIONS, PROCEDURES, AND SPECIFICATIONS FOR THE DESIGN AND EQUIPMENT OF SCHOOL BUSES (4336)

# §126-92-1. General.

- 1.1. Scope. -- This legislative rule provides regulations for school transportation and the design and equipment of school buses (bus/buses) for West Virginia schools including the West Virginia Schools for the Deaf and the Blind, the West Virginia Department of Education (WVDE) Office of Diversion and Transition Programs, and any other schools under the supervision of the West Virginia Board of Education (WVBE) and WVDE.
- 1.2. Authority. -- W. Va. Constitution, Art. XII, §2, W. Va. Code §§17C-12-3, 17C-14-12, 18-2-5, 18-5-13, 18-8-1, and 18A-4-8e; and Subtitle B of Title VII of the McKinney-Vento Homeless Assistance Act (42 U. S. C. 11431), et seq.
  - 1.3. Filing Date. -- .
  - 1.4. Effective Date. -- .
- 1.5. Repeal of Former Rule. -- This legislative rule repeals and replaces W. Va. 126CSR92, Policy 4336, West Virginia Transportation Policy and Procedures Manual (4336) filed December 5, 2017, and effective January 8, 2018, and repeals W. Va. 126CSR89, Policy 4334, West Virginia Minimum Requirements for Design and Equipment of School Buses (4334), filed July 11, 2014, and effective August 11, 2014.

# §126-92-2. Purpose.

2.1. This policy provides guidance to county board transportation systems to ensure safe, high quality programs for the students transported to and from the public schools and school-related activities. The county board of education (county board) shall ensure that this policy is readily available to all staff involved in the transportation of students.

# §126-92-3. Bus Passenger Regulations.

- 3.1. The Executive Director of the WVDE Office of School Facilities and Transportation (State Director), shall serve as the liaison with county boards in the implementation of Policy 4336.
- 3.2. The operator shall be in charge of any passengers riding the bus. The operator shall follow W. Va. 126CSR99, Policy 4373, Expected Behavior in Safe and Supportive Schools (Policy 4373) to provide discipline on buses.
- 3.3. The county board shall provide training on Policy 4373 to all operators and aides upon initial employment with the county, and any time Policy 4373 is revised.

- 3.4. Enrolling or enrolled students, employees, or persons approved previously by a county board are the only passengers eligible to be transported by the county school transportation system. Under no circumstances is a student to be left at a bus stop unattended. Operators shall follow the county's ridership procedures.
- 3.5. All students living greater than two miles from their assigned school will be eligible for school transportation services. Transportation services are not recommended on streets, roadways, or private property developments which are not maintained by the West Virginia Department of Highways or a public municipality, or a private property development in which law enforcement agencies may not respond to an accident, or anywhere visibility, sight distances, or adequate space to maneuver the bus may be in question. It shall be the responsibility of the county board to develop a policy to address these issues and to determine if these conditions exist prior to establishing a bus route.
- 3.6. Students shall participate in emergency evacuation drills at least twice and three times for pre-kindergarten (pre-k) student(s) annually. The first drill is to be completed by October 31<sup>st</sup> and the second by April 30<sup>th</sup> of each school year.
- 3.7. Compartmentalization, the passive safety restraint systems required in buses under Federal Motor Vehicle Safety Standards (FMVSS) 222, provides a higher level of safety to children over 40 pounds; however, all passengers under the age of five weighing 40 pounds or less must be secured in a CSRS and, if secured, shall meet the following:
- 3.7.a. each child shall be transported in a CSRS suitable for the child's weight, age, height, or specialized need that meets applicable FMVSS.
  - 3.7.b. each child shall be properly secured in the CSRS.
- 3.7.c. the CSRS shall be properly secured to the bus seat, using an anchorage system that meets applicable FMVSS.
- 3.7.d. the seat directly behind a child transported in a CSRS shall remain unoccupied unless occupants in that seat are in a CSRS as well, or unless the seats are of an integrated type.
- 3.7.e. children under the age of five and/or enrolled in West Virginia Universal Pre-k shall be seated in the front of the bus away from other passengers.
- 3.7.f. the services of a bus aide should be considered to assist the operator when trasnporting a student requiring a CSRS.
- 3.7.g. lap belts shall only be used to secure a CSRS, not a child. If lap belts are used to secure a CSRS, the bus seat(s) shall be seat belt-ready.
  - 3.7.h. any use of lap/shoulder belt combinations shall meet all federal and state regulations.

# §126-92-4. Regulations for Students Transported on Buses.

4.1. Responsibilities of parents.

#### 4.1.a. Parents shall:

- 4.1.a.1. provide written guidance regarding any special care a student may need while riding the bus.
- 4.1.a.2. be responsible for providing supervision for all pre-k-3 students at all bus stops until the bus arrives for both pickup and delivery.
- 4.2. The county board may terminate bus transportation service if a parent persistently fails to meet the bus at a designated stop. For these situations, due process procedures shall be made available to the parents and students.
  - 4.3. Responsibilities of students.

#### 4.3.a. Students shall:

- 4.3.a.1. walk on the left side of the road facing traffic.
- 4.3.a.2. wait on the bus in an orderly manner at the designated stop.
- 4.3.a.3. board and exit the bus in an orderly manner.
- 4.3.a.4. follow the operator's/aide's instructions at all times.
- 4.3.a.5. comply with Policy 4373.
- 4.3.a.6. be responsible for vandalism that occurs on a seat in which they ride.
- 4.3.a.7. change seats only with permission of the operator when the bus is not in motion.
- 4.3.a.8. avoid unnecessary conversation with the operator.
- 4.3.a.9. keep heads and arms inside bus windows at all times.
- 4.3.a.10. report any open exit or released hatch to the operator immediately.
- 4.3.a.11. provide enrollment information to the operator.

#### 4.3.b. Students shall not:

- 4.3.b.1. eat, drink, or place objects in their mouths that may cause a choking hazard while on the bus except for medically necessary foods or medications according to W. Va. 126CSR25A, Policy 2422.7, Standards for Basic and Specialized Health Care Procedures (Policy 2422.7).
  - 4.3.b.2. ride in stepwell or forward of front row seats.
  - 4.3.b.3. stand at any time while the bus is in motion.

- 4.3.b.4. throw, or pass, any object of any nature into or from the bus through a door or window.
- 4.3.b.5. use harassing, profane, or obscene language or gestures.
- 4.3.b.6. open emergency exits, except during emergencies, unless directed by the operator.
- 4.3.b.7. wear headphones or any type of earpiece that may prevent hearing a warning signal or horn while loading or unloading from the bus.

# §126-92-5. Regulations for Transporting Students with Disabilities Requiring Special Transportation.

- 5.1. Students with disabilities' Individualized Education Programs (IEP), individualized health care plans, and Section 504 of the Rehabilitation Act of 1973, Pub. L. No. 93-112 Plans (504 Plan) shall specify the bus modifications and support required for transporting the student, when appropriate.
- 5.2. When transportation of a student with disabilities necessitates a transfer while en route, appropriate supervision at the point of transfer remains the responsibility of the county board.
  - 5.3. Vehicle requirements for use in transporting students with disabilities shall be guided by this policy.
  - 5.4. The operator and/or the bus aide, when appropriate, shall:
    - 5.4.a. assist and supervise students with disabilities.
    - 5.4.b. complete first aid and Cardiopulmonary Resuscitation (CPR) training.
- 5.5. All operators, including substitutes and any operators who transfer to a bus transporting students with special healthcare needs, shall receive six hours of initial training for the transportation of students with special health care needs including the requirements of Policy 2422.7. All operators shall receive a minimum of one hour of refresher training that shall be completed annually.
- 5.6. All aides shall receive six hours initial training in the proper operation of the lift, restraints, emergency equipment, emergency procedures, and proper loading and unloading procedures for students with special healthcare needs. Any combination of classroom and hands-on training may be utilized. A minimum of one hour of refresher training shall be completed annually.
- 5.7. The operator should remain inside the bus, receive the student from the lift, and properly secure the wheelchair. Aides shall assist the operator as necessary.
- 5.8. Any operator who normally does not operate a bus that transports students with special healthcare needs and accepts an assignment to transport those students, such as a field trip, shall be responsible for determining the need for refresher training in the proper operation of the lift, restraints, emergency equipment, emergency procedures, and proper loading and unloading procedures of students prior to beginning that assignment.
- 5.9. The county special education director/designee and/or school nurse shall provide the following information to the county transporation director (county director)/designee, operator, and aide:

- 5.9.a. student's name and address.
- 5.9.b. parent's name, address, home, and telephone number(s).
- 5.9.c. emergency health care plan information and/or individualized health care needs.
- 5.10. When the IEP, individualized health care plan, or 504 Plan requires that medicine be administered to a student with disabilities while being transported, the procedures shall be in accordance with Policy 2422.7.
- 5.10.a. The school nurse shall delegate to and train the aides in medication administration or in the delivery of medication and other basic or specialized health care procedures as specified in Policy 2422.7.
- 5.11. Parents/guardians of students with disabilities, pursuant to the IEP, shall assist in the transportation of their child by:
  - 5.11.a. providing documentation on the special care needed.
  - 5.11.b. bringing the student to the bus stop and providing the necessary supervision.
  - 5.11.c. picking up the student at the designated time at the designated bus stop.
  - 5.11.d. contacting the operator if the child is to be absent.
- 5.12. The county board shall implement Policy 4373 in conjunction with 126CSR16, Policy 2419, Regulations for the Education of Students with Exceptionalities (Policy 2419).
- 5.13. The county director/designee shall be included in the IEP meeting when special transportation is required.

# §126-92-6. Regulations for Transporting Homeless Students.

- 6.1. County boards shall ensure compliance with Subtitle B of Title VII of the McKinney-Vento Homeless Assistance Act, 42 U.S.C. 11431, et seq. (McKinney-Vento Act) when addressing the needs of homeless children. If a homeless child or youth continues to live in the area served by the county board in which the school of origin is located, that county board shall provide or arrange for the child's or youth's transportation to and from the school of origin.
- 6.2. If the homeless child or youth continues his/her education in the school of origin but begins living in an area served by another county board, the county board of origin and the county board in which the homeless child is living shall agree upon the method to apportion the responsibility and costs for providing the child with transportation to and from the school of origin. If the county boards cannot agree upon a method, the responsibility and costs for transportation are to be shared equally.

#### §162-92-7. Student Conduct on Buses.

7.1. The operator shall display the following major precepts of Policy 4373 in his/her bus.

- 7.1.a. All students enrolled in West Virginia public schools shall behave in a manner that promotes a school environment that is nurturing, orderly, safe, and conducive to learning and personal-social development.
- 7.1.b. Students shall help create an atmosphere free from bullying, intimidation, harassment, or any other inappropriate behavior.
  - 7.1.c. Students shall demonstrate honesty and trustworthiness.
- 7.1.d. Students shall treat others with respect, deal peacefully with anger, use good manners, and be considerate of the feelings of others.
  - 7.1.e. Students shall demonstrate responsibility, use self-control, and be self-disciplined.
  - 7.1.f. Students shall demonstrate fairness, follow rules, and not take advantage of others.
  - 7.1.g. Students shall demonstrate compassion and caring.
- 7.1.h. Students shall demonstrate good citizenship by obeying laws and rules, respecting authority, and by cooperating with others.
- 7.1.i. Students shall have proper approval to exit the bus other than at their regularly assigned bus stop.

# §126-92-8. Procedures for Disciplining Students Transported by Buses.

- 8.1. The operator shall immediately notify the school principal when any transported student has violated Policy 4373. Written notification shall be completed by the operator as soon as possible.
- 8.1.a. Student discipline is the responsibility of the principal together with the operator. A student to be suspended from the bus shall be notified by the principal/designee, with the operator's assistance. The parents/guardians of the student shall be notified by the school principal/designee.
- 8.1.b. All students shall be transported until the parent/guardian has been properly notified about the suspension.
- 8.1.c. A suspended student shall be readmitted to the bus only after the principal/designee notifies the operator that the student may be readmitted. Parents/guardians will also be notified by the school principal/designee when their child may resume riding the bus.
- 8.1.d. If a student has been recommended for discipline three times in one year by the operator, a conference to discuss the student's disruptive behavior patterns shall be conducted. During the conference, the parent/guardian shall be present with the operator and the principal/designee. If the inappropriate behavior persists, the student's rights to transportation services may be suspended for the remainder of the year, to the extent feasible.

# §126-92-9. Medical Exclusion of Students from a Bus.

- 9.1. The school nurse or administrator, as per 126CSR51, Policy 2423, Health Promotion and Disease Prevention and W. Va. Code §18A-5-1 and §18-5-22, shall notify the operator when a student shall be excluded from the bus due to an infectious disease.
- 9.2. The student will be returned to the bus transportation program when the appropriate medical official has given the student a written statement signifying that the student may again be transported with other students.

# §126-92-10. General Operating Procedures.

- 10.1. The operator shall wear a seatbelt as designed anytime the vehicle is in motion.
- 10.2. Transportation employees are professionals and should conduct themselves in a professional manner, per 126CSR162, Policy 5902, Employee Code of Conduct (Policy 5902), Section 4.2. Additionally, all operators and aides shall wear non-skid shoes. Heels of more than two inches in height, sandals, clogs, flip flops, open-toed or open-heeled shoes, and wooden-soled shoes shall not be permitted.
- 10.3. The operator shall not knowingly operate an unsafe bus and shall perform all inspections and duties set forth in section 24 of this policy and any additional inspections and duties required by the county board.
- 10.4. The county board shall provide each operator a revised copy of this policy and a current bus schedule, by the first day of school.
- 10.5. The operator shall not permit any unauthorized person to occupy the operator's seat or tamper with the bus at any time.
- 10.6. The operator shall observe all speed limits. Truck speed limits apply to buses. Adverse weather conditions require reduced speeds.
  - 10.7. Operators shall use proper signals as required by law when operating a bus.
- 10.8. The operator shall not leave the bus when it is running and has students onboard unless the bus is equipped with a lift and safety interlocks for FMVSS 403 and 404 lift equipment, and the operator is assisting the loading or unloading of a student with the lift.
- 10.9. When the operator leaves the bus, due to an emergency, installation of tire chains, emergency drills, etc., the emergency brake shall be engaged, and the keys shall be in the possession of the operator with the exception referred to in section 10.8 of this policy.
- 10.10. The operator shall not drive the bus in reverse while at the school or while loading or unloading students except in an emergency. The operator shall use the assistance of a school official or another adult when the situation requires such a movement.
- 10.11. The operator shall use the route as specified by the county director unless an emergency authorized by the county board necessitates a change. The county director shall conduct a "Potential Hazard Audit" annually prior to the first day of school.

- 10.12. All bus schedule changes made by the county director shall be communicated to the parents and students as quickly as possible.
- 10.13. In case of an accident or a mechanical failure while students are being transported, the operator shall provide for the safety of the students and request assistance as soon as possible.
  - 10.14. The operator should only disengage the clutch while making a complete stop or shifting gears.
- 10.15. The operator shall conduct and supervise emergency exit drills at least twice in a school year, according to Federal Highway Safety Standard No. 17, Section E (1), and three times annually for pre-k students.
- 10.15.a. Drills are to be conducted on county/school property whenever possible. If drills are conducted on non-school property, care shall be taken to provide for the safety of students.
  - 10.15.b. School officials shall assist in the drills when conducted on school property.
- 10.15.c. The drills shall include students exiting through the front and rear door and instruction on the proper use of exit windows, roof hatches, and other instruments used to assist with emergencies.
  - 10.15.d. Wheels shall be chocked during the drill.
  - 10.15.e. Upon completion, the date of the drills shall be reported to the county director.
- 10.16. Signage, including but not limited to advertisements, banners, photos, stickers, and posters, except those approved by the WVDE, is not permitted to be displayed in or on buses.
  - 10.17. Only certified service animals are permitted on a bus.
- 10.18. Only property of students, county board property, or school property may be transported on a bus.
- 10.19. Baggage and other items transported in the passenger compartment shall be stored and secured so that the aisles are kept clear and the door(s) and emergency exit(s) remain unobstructed at all times.
- 10.20. Fireworks, ammunition, explosives, lighter fluid, aerosol cans, other highly flammable materials, and all other deadly or dangerous weapons, are prohibited.
- 10.20.a. Aerosol cans such as windshield deicer shall be stored in an outside storage box on the bus. Properly labeled spray bottles may be stored inside the bus but must be stored out of sight in a secure location.
- 10.21. Medical support equipment and special adaptive/assistive equipment such as oxygen bottles may be transported as follows:
- 10.21.a. oxygen bottles should be no larger than 38 cubic feet of liquid oxygen and 22 cubic feet for compressed gas.

- 10.21.b. tanks and valves should be located and positioned to protect them from direct sunlight, bus heater vents, or other heat sources. Stationary tanks shall be properly mounted with OEM approved mounting devices.
- 10.21.c. oxygen bottles of a non-stationary type, medically prescribed for a student by a physician, shall be in a padded carrier designed for personal use and protection and shall be in the possession of the passenger. Documentation of prescribed need should be on file.
- 10.21.d. operators and aides shall be trained in the proper transportation of special adaptive/assistive equipment such as oxygen bottles.
  - 10.21.e. if compressed gas is in use, a placard shall be installed and readily visible.
  - 10.22. Bus Safety Equipment.
- 10.22.a. Approved bus directional triangles shall be carried on each bus and used as a warning device during emergencies.
- 10.22.b. Bus flashing lights (four-way hazard lights) should be used only in emergencies and railroad crossing procedures.
- 10.22.c. Link-type bus tire chains shall be used when emergency weather conditions dictate or when directed by the county director. Operators shall be trained in the installation and use of chains. Automatic tire chains shall not take the place of regular chains.
- 10.22.d. Fire extinguishers shall be charged, available for use in all buses, and inspected daily. Inspection tag shall be initialed monthly per National Fire Protection Association (NFPA) 10-2018.
- 10.22.e. First aid/body fluid cleanup kits and belt cutters shall be readily available in the bus. Belt cutters shall be securely mounted, within reach of the operator, and labeled if in a compartment and not clearly visible.
- 10.22.f. A strobe light shall be used in inclement weather only where visibility of the bus is limited. Rain, snow, sleet, fog, etc. are all considered inclement weather. Nighttime shall not be considered limited visibility.
  - 10.23. General Reports.
- 10.23.a. Operators shall be monitored and evaluated at least annually for performance by the county director. Evaluations should include verbal discussions with the operator, ride with the operator, review of bus video, or any combination thereof.
- 10.23.a.1. A bus video may be reviewed at any time by the State Director, WVDE bus inspector, WVDE investigator, WVDE and/or county attorney, county director, and the county superintendent for reasons including but not limited to: safety violations or misconduct, violation of policies and procedures, operator evaluation, periodic review of student conduct, etc. Viewing of the bus video for student misconduct shall meet the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part

- 99) regulations. The bus video may be viewed by the operator with permission or consent of the county director or designee approved by the county superintendent.
- 10.23.a.2. County directors who perform evaluations shall be trained in proper evaluation procedures.
- 10.23.b. Operators are to compile monthly reports and submit them to the county director no later than three working days following the last day of the school month.
- 10.23.c. The county director shall submit state reports through the West Virginia Education Information System (WVEIS) no later than ten working days following the last day of the school month.
  - 10.23.d. The Bus Fleet Report shall be submitted through WVEIS by June 30<sup>th</sup> of each year.
- 10.23.e. All students transported to and from school shall have their transit times entered into WVEIS by the end of the second month of school and updated as necessary.
  - 10.23.f. Road hazards are to be reported immediately to the county director.
  - 10.24. Accident Reports.
- 10.24.a. A bus accident is to be reported to the county director when the bus touches another vehicle, person, or object, or leaves a mark and/or causes damage.
- 10.24.a.1. A verbal report is to be given by the operator as soon as possible and a written report provided on the next business day to the county director. Bodily injuries should be reported as per county board procedure or policy.
- 10.24.b. All bus accidents involving bodily injury, a fatality, extensive property damage, or structural damage to a bus shall be reported immediately via phone by the county director to the State Director. A written report is to follow to the Executive Director within one week.
  - 10.25. Cellular Phones.
- 10.25.a. The use of ear pieces, ear buds, headsets, cellular phones, or other portable electronic devices, even those equipped with hands-free technology, is prohibited for operators while operating the bus and by aides while students are present. Global Positioning System (GPS) units used on curricular and extra-curricular trips are prohibited unless audible only or can be viewed by a chaperone.
- 10.25.b. The use of cellular phones while supervising the loading and unloading of students is prohibited.
- 10.25.c. If communication with the county board's transportation department is necessary, the bus must be stopped in a location where the bus can safely remain stationary.
  - 10.26. County Two-Way Radios.
    - 10.26.a. County two-way radios shall be used to conduct transportation business only. Any use that

could interfere with emergency communication shall be prohibited.

- 10.27. Safe Drivers' Programs.
- 10.27.a. The WVBE encourages county boards to support operator safe drivers' programs such as those listed in section 25.4.

# §126-92-11. Bus Stop Locations.

- 11.1. The highest priority in establishing bus stop locations must be the safety of students. Every effort should be made by county boards to select a safe bus stop location with ample waiting areas for students. With irregular terrain, special consideration must be given in establishing a bus stop location.
- 11.2 Ideally, bus stops should be located out of the traffic stream and at least 2/10 of a mile apart. Operators should avoid stopping at intersections whenever possible.
- 11.3. For bus stop locations near a railroad crossing, consideration should be given to the traffic flow in the area and to assure that adequate distance is allowed for traffic to clear the railroad tracks. The safety of the general motorists should be considered.
- 11.4. The minimum sight distance should be related to the approved speed of traffic. The approved speed is the posted speed limit, advisory speed limit, or a value judged to most accurately represent the prevailing speed at a specific location.
  - 11.4.a. Sight distance needed on a level grade for essential speeds is as follows:

Speed/Miles Per	Recommended	Minimum	
Hour (MPH)	Sight Distance	Sight Distance	
25	300 feet	139 feet	
30	360 feet	176 feet	
35	420 feet	219 feet	
40	480 feet	263 feet	
45	540 feet	314 feet	
50	600 feet	369 feet	
55	660 feet	432 feet	

**EXCEPTION:** When a bus stop is near the crest of a hill or a curve, the view of approaching traffic is obstructed, the sight distance shall be a minimum of 200 feet.

- 11.5. West Virginia Department of Transportation (WVDOT) District Traffic Engineers will provide assistance in the selection and the use of bus STOP signs which warn motorists of the presence of students at a bus stop. The county board shall request assistance from the WVDOT if needed.
  - 11.6. Bus stops should be located to minimize students' walking along roadways.
- 11.7. Wherever possible, bus stops should be located to minimize the need for students to cross the highway.

- 11.8. The operator shall contact the county director when a bus stop is determined to be potentially unsafe. The county director shall evaluate and take action to relocate the stop to a safer place, if necessary.
- 11.8.a. The county director may request the Exective Director/designee to assist in evaluation of bus stop locations, but the final decision shall remain the responsibility of the county board.
- 11.9. Operators are to pick up and discharge students only at the designated locations. Any transfer points should be conducted off highway, with a preference given to transferring on school property.

# §126-92-12. Loading and Unloading of Student Passengers and Railroad Crossings.

- 12.1. Approaching the stop.
- 12.1.a. The operator shall not change the location of a bus stop without written approval from the county director.
  - 12.1.b. When approaching the stop, the operator shall:
- 12.1.b.1. approach cautiously at a slow rate of speed. Look for pedestrians, traffic, or other objects before, during, and after coming to a stop. Continuously check all mirrors.
- 12.1.b.2. activate alternating flashing amber warning lights at least 200 feet or approximately five to ten seconds before the bus stop or in accordance with state law.
- 12.1.b.2.A. If the alternating flashing amber warning lights have been activated during student loading, the operator shall come to a complete stop and activate alternating flashing red lights regardless if students can be seen to ensure no student may be approaching the bus from a blind spot.
- 12.1.b.3. continuously check mirrors to monitor the danger zones for students, traffic, and other objects.
  - 12.1.b.4. move as far as possible to the right on the traveled portion of the roadway.
- 12.1.b.5. bring the bus to a full stop with the front bumper at least ten feet away from students at the designated stop. This action forces the students to walk to the bus so the operator has a better view of their movements.
- 12.1.b.6. place transmission in Park, or if there is no Park shift point, in Neutral and set the parking brake at each stop.
- 12.1.b.7. open service door, if possible, enough to activate alternating red lights when traffic is a safe distance from the bus.
- 12.1.b.8. make a final check to see that all traffic has stopped before completely opening the door and signaling students to approach.
  - 12.2. Loading procedures.

- 12.2.a. Perform a safe stop as described in section 12.1.b.
- 12.2.b. Students should wait in a designated location for the bus, facing the bus as it approaches. Students should board the bus only when signaled by the operator. The signal shall consist of the "thumbs up" method that is recognized by students and does not create a hazard. External public address (PA) systems shall be an acceptable alternative.
  - 12.2.c. The operator shall:
    - 12.2.c.1. monitor all mirrors continuously.
    - 12.2.c.2. instruct the students in safe loading and unloading procedures.
- 12.2.c.3. count the number of students at the bus stop and be sure all students board the bus. If possible, know names of students at each stop.
  - 12.2.c.4. ask the other students where the student is if there is a missing student.
  - 12.2.c.5. have the students board the bus slowly, in single file using the handrail.
  - 12.2.c.6. make sure all dome lights are on while loading in the dark.
  - 12.2.c.7. wait until students are seated and facing forward before moving the bus.
- 12.2.c.8. check all mirrors. Make certain no one is running to catch the bus. If the operator cannot account for a student outside, the operator is to secure the bus, take the key, and check around and underneath the bus. Ensure the red loading lights stay activated and traffic remains stopped while checking outside the bus.
  - 12.2.c.9. prepare to leave when all students are accounted for by:
    - 12.2.c.9.A. closing the door.
    - 12.2.c.9.B. fastening the seatbeat.
    - 12.2.c.9.C. starting the engine.
    - 12.2.c.9.D. engaging the transmission.
    - 12.2.c.9.E. releasing the parking brake.
    - 12.2.c.9.F. turning off alternating flashing red lights.
    - 12.2.c.9.G. checking all mirrors again.
    - 12.2.c.9.H. allowing congested traffic to disperse.
  - 12.2.d. When it is safe, the operator shall move the bus to enter traffic flow and continue the route.

- 12.2.e The loading procedure is essentially the same wherever students are loaded, but there are slight differences. When students are loading at the school campus, the operator should:
  - 12.2.e.1. turn off the ignition switch.
- 12.2.e.2. remove key if leaving the operator's compartment. The operator's compartment shall be defined as the area directly adjacent to the operator's seat and forward of the front seat barrier.
- 12.2.e.3. position himself/herself to supervise loading as required or recommended by local regulations.
  - 12.3. Unloading Procedures on the Route.
    - 12.3.a. When unloading students on the route, the operator shall:
      - 12.3.a.1. perform a safe stop at designated unloading areas as described in section 12.1.b.
      - 12.3.a.2. have the students remain seated until told to exit.
      - 12.3.a.3. check all mirrors.
- 12.3.a.4. count the number of students while unloading to confirm the location of all students before pulling away from the stop.
- 12.3.a.5. assure that all exiting students are at their authorized stop. Tell students to exit the bus and walk at least ten feet away from the side of the bus to a position where the operator can plainly see all students.
  - 12.3.a.6. check all mirrors again. Make sure no students are around or returning to the bus.
- 12.3.b. If the operator cannot account for a student outside the bus, the operator shall secure the bus and check around and underneath the bus. Ensure the red loading lights stay activated and traffic remains stopped while checking outside the bus.
  - 12.3.c. When all students are accounted for, the operator shall prepare to leave by:
    - 12.3.c.1. closing the door.
    - 12.3.c.2. starting the engine.
    - 12.3.c.3. fastening the seatbelt.
    - 12.3.c.4. engaging transmission.
    - 12.3.c.5. releasing parking brake.
    - 12.3.c.6. turning off alternating flashing red lights.

- 12.3.c.7. checking all mirrors again.
- 12.3.c.8. allowing congested traffic to disperse.
- 12.3.d. When it is safe, the operator shall move the bus, enter the traffic flow, and continue the route.
- 12.3.e. If an operator has missed a student's unloading stop, he/she shall not back up. The operator shall be sure to follow local procedures.
  - 12.4. Additional Procedures for Students Who Must Cross the Roadway.
    - 12.4.a. If a student or students must cross the roadway, they shall follow these procedures:
- 12.4.a.1. students shall walk approximately ten feet away from the side of the bus to a position where the operator can see them.
- 12.4.a.2. students shall walk to a location at least ten feet in front of the right corner of the bumper, but still remaining away from the front of the bus.
- 12.4.a.3. students shall stop at the right edge of the roadway. The operator should be able to see the student's feet.
  - 12.4.a.4. when students reach the edge of the roadway, they shall:
    - 12.4.a.4.A. stop and look in all directions, making sure the roadway is clear and safe.
    - 12.4.a.4.B. check to see if the red flashing lights on the bus are still flashing.
- 12.4.a.4.C. wait for the operator's signal before crossing the roadway. The signal shall consist of the "thumbs up" method. External PA shall be an acceptable alternative.
- 12.4.a.4.D. upon the operator's signal, cross far enough in front of the bus to be in view of the operator.
- 12.4.a.4.E. stop at the left edge of the bus stop and look again for the operator's signal to continue to cross the roadway.
  - 12.4.a.5.F. look for traffic in both directions, making sure roadway is clear.
  - 12.4.a.6.G. students shall proceed across the roadway, continuing to look in all directions.
  - 12.5. Unloading Procedures at School.
    - 12.5.a. When unloading at the school, the operator shall follow these procedures:
      - 12.5.a.1. perform a safe stop at designated unloading areas as described in section 12.1.b.

- 12.5.a.2. secure the bus by:
  - 12.5.a.2.A. turning off the ignition switch.
  - 12.5.a.2.B. removing key if leaving operator's compartment with students onboard.
  - 12.5.a.2.C. having the students remain seated until told to exit.
- 12.5.a.2.D. positioning himself/herself to supervise unloading as required or recommended by-state or local regulations.
  - 12.5.a.2.E. having students exit in orderly fashion.
- 12.5.a.2.F. observing students as they step from bus to see that all move promptly away from the unloading area.
- 12.5.a.2.G. walking through the bus and checking for hiding/sleeping students and items left by students.
  - 12.5.a.2.H. checking all mirrors.
  - 12.5.a.2.I. making certain no students are returning to the bus.
- 12.5.a.2.J. checking around and underneath the bus if the operator cannot account for a student outside the bus and the bus is secure.
  - 12.5.a.3. when all students are accounted for, the operator will prepare to leave by:
    - 12.5.a.3.A. closing the door.
    - 12.5.a.3.B. fastening the seatbelt.
    - 12.5.a.3.C. starting engine.
    - 12.5.a.3.D. engaging the transmission.
    - 12.5.a.3.E. releasing the parking brake.
    - 12.5.a.3.F. turning off alternating flashing red lights.
    - 12.5.a.3.G. turning on left turn signal.
    - 12.5.a.3.H. checking all mirrors again.
    - 12.5.a.3.I. allowing congested traffic to disperse.
  - 12.5.a.4. when it is safe, the operator will pull away from the unloading area.

- 12.6. Special Dangers of Loading and Unloading.
- 12.6.a. Dropped or Forgotten Objects. The operator shall always focus on students as they approach and leave the bus and watch for any who disappear from sight.
- 12.6.b. Handrail Hang-ups. Clothing, accessories, or parts of students' bodies can get caught in the handrail or door as they enter or exit the bus. Closely observe all students exiting the bus to confirm that they are in a safe location prior to moving the bus.
- 12.6.c. The operator shall report to the appropriate law enforcement official any motorist who violates the state law regarding the stopping of motor vehicles when a bus is loading and unloading in accordance with W. Va. Code §17C-12-7 and 17C-12-9.
- 12.7. Railroad-highway Crossing Procedures (Per W. Va. Code §17C-12-3 certain vehicles must stop at all railroad grade crossings).
  - 12.7.a. When approaching the crossing, the operator shall:
- 12.7.a.1. slow down, including shifting to a lower gear in a manual transmission bus and testing the brakes.
- 12.7.a.2. activate hazard lights approximately 200 feet before the crossing. Make sure his/her intentions are known.
  - 12.7.a.3. scan the surroundings and check for traffic behind the bus.
  - 12.7.a.4. stay to the right of the roadway if possible.
  - 12.7.a.5. choose an escape route in the event of a brake failure or problems behind the bus.
  - 12.7.b. At the crossing, the operator shall:
- 12.7.b.1. stop no closer than 15 feet and no farther than 50 feet from the nearest rail, where the operator has the best view of the tracks.
- 12.7.b.2. place the transmission in Park, or if there is no Park shift point, in Neutral and press down on the service brake or set the parking brake.
  - 12.7.b.3. turn off all radios and noisy equipment and silence the passengers.
- 12.7.b.4. open the service door and operator's window. Look and listen for an approaching train. If a train is present, close door, set park brake and wait for train to pass.
  - 12.7.c. Crossing the track, the operator shall:
    - 12.7.c.1. check the crossing signals again before proceeding. Close the entrance door.

- 12.7.c.2. stop only before the first set of tracks if at a multiple track crossing. When certain no train is approaching on any track, proceed across all of the tracks until the bus has completely cleared them. Close the operator's window, turn the emergency flashers off, and continue the route.
  - 12.7.c.3. cross the tracks in a low gear. Do not change gears while crossing.
- 12.7.c.4. drive through the gate if it comes down after the bus has started across even if it means the bus will break the gate.
  - 12.7.d. Special situations.
    - 12.7.d.1. Bus stalls or trapped on tracks.
- 12.7.d.1.A. If the bus stalls or is trapped on the tracks, the operator shall get all passengers out of the bus and off the tracks immediately.
- 12.7.d.1.B. The operator shall move everyone far from the bus at an angle, which is both away from the tracks and toward the train.
  - 12.7.d.2. Police officer at the crossing.
    - 12.7.d.2.A. If a police officer is at the crossing, the operator shall obey directions.
- 12.7.d.2.B. If there is no police officer and the operator believes the signal is malfunctioning, the operator shall call his/her dispatcher to report the situation and ask for instructions on how to proceed.
  - 12.7.d.3. Obstructed view of tracks.
- 12.7.d.3.A. The operator shall not attempt to cross the tracks unless he/she can see far enough down the track to know for certain that no trains are approaching.
- 12.7.d.3.B. Operators are to be especially careful at "passive" crossings. Passive crossings are those that do not have any type of traffic control device.
- 12.7.d.3.C. Even if there are active railroad signals that indicate the tracks are clear, the operator must look and listen to be sure it is safe to proceed.
  - 12.7.d.4. Containment or storage areas.
- 12.7.d.4.A. Operators shall know the length of their buses and the size of the containment area at highway-rail crossings on the bus route, as well as any crossings the buses encounter in the course of a school activity trip.
- 12.7.d.4.B. The operator shall add 15 feet to the length of the bus to determine an acceptable amount of containment or storage area.
- 12.7.d.4.C. When approaching a crossing with a signal or stop sign on the opposite side, the operator shall pay attention to the amount of room there.

12.7.d.4.D. The operator shall be certain the bus has enough containment or storage area to completely clear the railroad tracks on the other side if there is a need to stop.

# §126-92-13. Idling of Buses at Schools and School Functions (W. Va. Code §17C-12-7).

- 13.1. In normal weather, an operator shall not idle the bus while waiting for or loading students.
- 13.2. Buses will be permitted to idle when the temperature is 40 degrees Fahrenheit or colder, when the driving windows need to be defrosted, when the safety and comfort of the students is in question, or when emergency dictates.
- 13.3. Operators are prohibited from idling the buses for more than ten minutes unless defrosting of windows is needed; in this case, idling shall be limited to 30 minutes.
  - 13.4. County boards shall develop a policy to address violations of this section.

# §126-92-14. Guidelines for Curricular and Extra-curricular Trips.

- 14.1. County boards providing transportation for students participating in curricular and extra-curricular activities shall require participating school officials to submit a planned schedule to the county superintendent or his/her designee for approval. Procedure shall be as follows:
- 14.1.a. the county director shall receive a copy of the approved schedule far enough in advance to arrange safe and adequate transportation.
  - 14.1.b. schedules for approved trips shall not interfere with the regular transportation schedule.
- 14.1.c. only operators employed by the county board shall operate type A, C, and D buses on such trips.
- 14.1.d. all buses used for such trips shall be covered by insurance as provided in W. Va. Code §18-5-13.
- 14.1.e. students transported in a bus on such trips shall, in addition to the operator, be supervised by at least one professional employee of the county board who shall provide a list of all persons on the bus to the operator. Each bus shall be supervised by a professional employee or person approved by the county board with assurances that provisions for specialized health care needs are made, if necessary.
- 14.1.e.1. Students transported in a bus on such trips shall be instructed on the location and operation of all emergency exits and proper procedures for evacuating the bus in case of accident or breakdown.
- 14.2. County boards providing curricular and extra-curricular transportation shall file a report through the WVEIS at the end of each month on curricular and extra-curricular trips.
- 14.3. Professional personnel permitted to drive board-owned, rented, or leased vehicles with a designed seating capacity of fewer than ten occupants, not including the operator, pursuant to W. Va. Code

- §18-5-13(f)(4), shall have a valid driver's license. All occupants in these vehicles shall wear restraints anytime the vehicle is in motion. Professional personnel shall be defined per W. Va. Code §18A-1-1. No more than one county board-owned, rented, or leased vehicle as described above shall be used for any single trip. A bus should be used for more than nine students and/or passengers on curricular and extra-curricular trips.
- 14.4. Students may be transported to a school-sponsored activity in a vehicle that has a designed seating capacity of 16 or more passengers such as a charter or public transit bus which is not owned and operated by the county board only as follows:
  - 14.4.a. Automobile insurance coverage:
    - 14.4.a.1. a certificate of insurance must be issued as follows:
      - 14.4.a.1.A. the certificate holder will be the county board.
- 14.4.a1.B. the cetificate of insurance must have evidence of a minimum of \$5,000,000 per occurrence of automobile liability.
- 14.4.a.1.C. the certificate of insurance should provide for 30 day notice of cancellation. Any certificate of insurance limited to a specific event or date is not acceptable.
  - 14.4.a.1.D. acceptance will be for all locations and operations of the school system.
- 14.4.a.1.E. for the charter or a public transit bus company to remain eligible to provide service, a new Certificate of Insurance must be supplied to the county board whenever the insurance is renewed, which normally occurs on an annual basis. The county board will not contact the bus company before suspending the company from providing charter service due to an expired certificate.
- 14.4.a.1.F. any notice from the insurance company that a bus company's insurance has been cancelled for any reason will result in the bus company's suspension from providing charter service to the county board;
  - 14.4.b. Preventive maintenance and maintenance records are provided.
  - 14.4.c. Bus or public transit ratings are provided.
  - 14.4.d. Driver training, certification, and criminal history record check are provided.
- 14.4.e. The vehicle owner shall provide to the county board proof that the vehicle and driver satisfy the requirements of WVBE policy.
  - 14.5. County boards may lease pursuant to rules established by the county board.
    - 14.5.a. Leased buses may be operated only by operators regularly employed by the county board.
    - 14.5.b. The lessee shall bear all costs and expenses incurred by, or incidental to, the use of the bus.
    - 14.5.c. The county board may lease buses to:

- 14.5.c.1. public and private nonprofit organizations and private corporations to transport school-age children for camps or educational activities;
- 14.5.c.2. any college, university, or officially recognized campus organization for transporting students, faculty, and staff to and from the college or university. Only college and university students, faculty, and staff may be transported pursuant to this paragraph.
- 14.5.c.3. public and private nonprofit organizations, including education employee organizations, for transportation associated with fairs, festivals, and other educational and cultural events.
  - 14.5.d. The lease shall include provisions for:
    - 14.5.d.1. compensation for operators.
    - 14.5.d.2. consideration for insurance coverage, repairs, and other costs of service.
    - 14.5.d.3. any rules concerning passenger behavior.
- 14.5.e. The county board may charge fees in addition to those charges otherwise required by this subsection.

# §126-92-15. Guidelines for Bus Routing.

- 15.1. The recommended duration of the one-way bus transportation time for students to and from school under normal weather and operating conditions is as follows:
  - 15.1.a. for elementary, primary, and intermediate school students, no more than 30 minutes.
  - 15.1.b. for middle and junior high school students, no more than 45 minutes.
  - 15.1.c. for high school students, no more than 60 minutes.
- 15.2. A county board may not create a new bus route for the transportation of students in any of the grade levels pre-k through grade five to and from any school included in a school closure, consolidation, or new construction project which exceeds by more than 15 minutes the recommended duration of the one-way bus transportation time for elementary students in accordance with section 15.1 unless:
- 15.2.a. the county board adopts a separate motion to approve creation of the bus route and requests written permission of the WVBE to create the route; and
  - 15.2.b. receives the written permission of the WVBE to create the route.
- 15.3. The WVDE shall provide technical assistance to county boards with the objective of achieving bus transportation routes for students which are within the recommended time durations established by the WVBE.

#### §126-92-16. Operator Assignments.

- 16.1. Any person accepting employment as an operator shall accept such position with the understanding that the responsibilities involved are his/her primary employment, and that such employment shall not be limited, or interfered with, by any commitment as a result of any other employment.
- 16.2. Transportation employees, including operators, may be delegated and trained to administer epinephrine auto-injectors (EpiPens) by the certified school nurse (Register Nurse-RN), as directed in W. Va. Code §18-5-22c and Policy 2422.7, if the county board elects to adopt such policy. EpiPens are the only medication which counties may elect to allow school nurse RNs to delegate and train operators to administer during an emergency situation. Special considerations may include transportation of medications on the bus, storage of medication, safety, return of medication to school to ensure it is properly stored and available for bus and school day, etc.
- 16.3. Any person who performs responsibilities as an operator shall not be eligible to operate a bus without a minimum of six consecutive hours of off-duty time for proper rest between the conclusion of the previous day's regularly scheduled afternoon run and/or any extra-curricular trip that has been assigned and immediately prior to the beginning of the next day's regularly scheduled morning run.
- 16.3.a. Any operator who accumulates more than ten hours of driving time in a 24-hour period shall be required to have eight consecutive hours off-duty.
- 16.3.b. Any operator who has been on-duty 15 hours in a 24-hour period shall be required to have eight consecutive hours off-duty.
- 16.3.c. An operator who operates a passenger-carrying commercial motor vehicle must be off-duty eight consecutive hours for rest after having been on-duty 60 hours in seven consecutive days or 70 hours in eight consecutive days. These requirements apply if the operator has any additional job with a county board or any employer in which on-duty hours accumulate. The operator is responsible for monitoring total on-duty hours.
  - 16.3.c.1. "On-duty" time is time for which the operator is being compensated by any employer.
  - 16.3.c.2. "Off-duty" time is defined as time uncompensated by any employer.

# §126-92-17. Criteria for the Certification of Operator Candidates and Contract Operators.

- 17.1. All operator candidates shall be initially certified by the WVDE Office of School Facilities and Transportation as designee of the State Superintendent of Schools (State Superintendent) at the request of the county board or the public institution seeking to regularly employ them.
  - 17.2. The operator candidate shall meet the following criteria to be certified:
    - 17.2.a. the candidate shall be at least 21 years of age.
- 17.2.b. The candidate shall have a high school diploma, a General Equivalent Diploma (GED), or a Test Assessing Secondary Completion (TASC) Diploma from an accredited educational institution.
  - 17.2.c. The candidate shall have at least three years of driving experience as a licensed operator of

any vehicle and be eligible to obtain a valid commercial driver's license permit. A permit will allow the candidate to take the required on-road training.

- 17.2.c.1. The candidate shall complete a form granting the employing county board permission to obtain his/her driving record from the Department of Motor Vehicles (DMV) of the appropriate state(s). The driving record shall be for five years, if available. The driving record shall not show a preponderance of evidence of frequent violations of traffic laws. All referenced forms will be available on the WVDE website.
- 17.2.d. The candidate shall submit to the county board or institution seeking to employ him/her a WVDE Application for Bus Operator Certification and Release of Information form. The county board shall submit to the WVDE Office of School Facilities and Transportation the Release of Information Form and a copy of the application form for each operator candidate; upon receipt of this information a request for a criminal background report will be issued.
- 17.2.e. All candidates for initial operator certification shall be fingerprinted by the West Virginia State Police (State Police) or its designee. The fingerprints shall be analyzed by the State Police for a state criminal history record check through the central abuse registry record and then forwarded to the Federal Bureau of Investigation (FBI) for a national criminal history record check.
- 17.2.e.1. Information contained in either the central abuse registry record or the FBI record may form the basis for the denial of a certificate for cause in accordance with W. Va. Code §18A-3-2a and §18A-3-10.
- 17.2.e.2. Upon written consent to the WVDE by the candidate and within 90 days of the state fingerprint analysis, the results of a state analysis may be provided to a county board or institution to which the candidate is applying for employment without further cost to the candidate.
- 17.2.e.3. Disclosure Provisions. Information maintained by the WVDE or a county board which was obtained for the purposes of complying with W. Va. Code §18A-3-10 is exempt from disclosure as provided by W. Va. Code §29B-1-4. Disclosure or publication of information in a statistical or other form that does not identify the individuals involved or provide personal information is not prohibited.
- 17.2.f. The candidate shall successfully complete a minimum of 40 hours of non-driving instruction with a WVDE-certified operator trainer. Instruction shall be in person from a WVDE-certified operator trainer, online training modules, or a combination thereof and shall include Policy 5902, Policy 4373, and W. Va. 126CSR28, Policy 2525, West Virginia's Universal Access to a Quality Early Education System. A WVDE-certified operator trainer shall be present anytime online training modules are utilized. Training shall not be duplicated to reach the required 40 hours of initial instruction. Only the number of hours per section of training designated by the WVDE shall be used to reach the initial 40 hours of instruction. Example: If an operator trainer determines a candidate requires five hours additional training on pre-trip inspection, the additional hours shall only be completed after the initial 40 hours of required instruction are complete.
- 17.2.g. The candidate shall successfully complete a minimum of 12 hours on-the-road training including two hours of night driving in the operation of bus with a WVDE-certified operator instructor on board and no student passengers.
- 17.2.h. The candidate shall receive appropriate training in the transportation of special education students. (See section 5.)

- 17.2.i. The candidate shall have first aid and cardiopulmonary resuscitation (CPR) certification from a program approved by the State Director.
- 17.2.j. The candidate shall pass a physical examination from a medical examiner certified by Federal Motor Carrier Safety Administration (FMCSA). The term "medical examiner" is defined as doctor of medicine, doctor of osteopathy, physician assistant, advanced practice nurse, and doctor of chiropractic.
- 17.2.j.1. The medical examiner shall record physical examinations on the U.S. Department of Transportation (USDOT) Medical Examination Report Form (for Commercial Driver Medical Certification).
- 17.2.j.2. The physical examination results may be used for certification for a period of up to six months from date of examination.
- 17.2.j.3. The physical examination shall cover all health issues set forth in section 19. Tuberculin testing is not required unless there is evidence of exposure to tuberculosis or signs or symptoms of active tuberculosis as referenced in W. Va. Code §16-3D-3.
- 17.2.k. The candidate shall be subject to pre-employment drug testing for the use of certain controlled substances as per all regulations of the USDOT. Negative drug test results must be obtained prior to beginning any behind-the-wheel training.
- 17.2.l. Prior to the candidate taking any skills examination or test provided by or administered by the WVDE, the candidate shall obtain a commercial driver's license (CDL) with a minimum Class B license and P (passenger) and S (school bus) endorsements.
- 17.2.m. The candidate shall pass a written examination provided by the WVDE online and administered by the county board seeking to employ him/her.
- 17.2.m.1. The candidate who fails the online examination may retake it three times if necessary during a two-month period at the discretion of the county board or institution seeking to employ him or her.
- 17.2.n. Upon successful completion of the online examination, the candidate shall pass additional tests on skills and performance at the request of the county board or institution seeking to employ the candidate administered by a qualified bus inspector employed by the WVDE or a certified operator examiner using vehicles owned or leased by the county board.
- 17.2.n.1. Should a candidate fail any portion of the skills or performance tests, the remainder of the test(s) shall not be administered. The skills and performance tests shall be administered to a candidate no more than three times annually and only after consultation with the test examiner or State Director. The request shall be in writing and shall include reasons for retesting. Candidates must wait five days prior to being retested and must receive documented additional training in the areas of failure. The entire test shall be re-administered.
  - 17.2.o. The candidate shall pass a physical performance exam.
- 17.2.p. Aides should be able to perform the same duties as the operator in the event of an emergency. Aides should be given a timed modified physical performance exam prior to beginning their

#### duties as follows:

- 17.2.p.1. move from the front of the bus to the rear and exit through the rear door.
- 17.2.p.2. ascend/descend the bus steps.
- 17.2.p.3. repeatedly open/close the service door manually.
- 17.2.p.4. lower/lift objects.
- 17.2.p.5. identify, apply, and release the bus parking brake.
- 17.2.q. Upon successful completion of the WVDE training program and receipt of identification, the newly certified operator shall initially be required to drive a minimum of two bus routes, one morning and one afternoon, with a certified operator and students on-board prior to accepting any assignment.
- 17.3. The State Superintendent may refuse to certify a candidate as an operator who is not of good moral character and physically, mentally, and emotionally qualified to perform the duties of operator safely and efficiently. Reasons supporting a refusal to certify include the following:
  - 17.3.a. failure to complete and pass or process any of the following:
    - 17.3.a.1. physical examination form including a list of all prescribed medications.
    - 17.3.a.2. training provided by the county board or public institution.
    - 17.3.a.3. online examination developed by the WVDE.
    - 17.3.a.4. skills and performance tests administered by the WVDE.
    - 17.3.a.5. drug screen.
- 17.3.a.6. accumulation of six or more points against the candidate's driving record from any state DMV.
- 17.3.a.7. conviction of one drug/alcohol-related driving offense within the last two years. Conviction of two or more drug/alcohol-related driving offenses shall permanently bar a candidate from receiving certification.
- 17.3.a.8. use or possession of any illegal controlled substance or any controlled substance that is a prescribed medication without a valid prescription or abuse with a valid prescription, within the last five years as demonstrated by a preponderance of evidence.
- 17.3.a.9. pattern of abuse of alcohol within the last five years regardless of the candidate's driving record, as demonstrated by a preponderance of evidence.
- 17.3.a.10. a criminal background or driving history that otherwise demonstrates a lack of good moral character.

- 17.3.a.11. conduct constituting sexual abuse, negligence, or assault of a minor whether or not criminally charged, as demonstrated by a preponderance of evidence.
- 17.4. When the State Director recommends to the State Superintendent that a candidate be denied certification for any reasons set forth in sections 17.3.a.1 through 17.3.a.11, the candidate will receive notice of the recommended denial for cause and be afforded the opportunity for a hearing before the School Bus Operator Review Panel in accordance with W. Va. 126CSR4, Policy 1340, Rules of Procedure for Administrative Hearings and Appeals (Policy 1340).
- 17.5. Counties may elect to hire a contract operator to transport students in passenger vehicles with a designed seating capacity of fewer than ten occupants, not including operator, in areas where bus service is limited due to terrain. Under no circumstances shall designed seating capacity be exceeded.
- 17.5.a. The contract operator candidate shall comply with all federal, state, and county regulations. The operator must have the minimum of a Class D CDL license.
- 17.5.b. The contract operator candidate shall submit to Criminal Investigation Bureau (CIB) and FBI background checks and a DMV background check prior to being considered for employment. A candidate shall not be employed if there is an accumulation of six or more points against the candidate's driving record from any state DMV. An accumulation of ten or more points against the operator's driving record after employment shall result in termination of contract. A DMV check shall be completed and submitted annually once employed.
- 17.5.c. The contract operator candidate shall complete an approved first-aid and CPR class and shall follow all guidelines for re-certification once employed.
- 17.5.d. The contract operator candidate shall pass an operator physical examination from a medical examiner prior to employment and then annually once employed.
- 17.5.e. The contract operator candidate shall be subject to WVDOT pre-employment drug testing and random testing once employed.
- 17.5.f. The contract operator candidate shall receive a minimum of eight hours of training with a WVDE certified operator instructor, online training modules, or a combination thereof, including but not limited to: loading and unloading procedures, railroad crossings, student conduct, emergency procedures, and county policies. A driving exam and state certification are not required.
- 17.5.g. The contract operator once employed shall have automobile liability coverage in place. The Certificate of Insurance must evidence a minimum of \$1,000,000 per occurrence of auto liability. Copies shall be made available to the county superintendent/designee.
- 17.5.h. The vehicle used to transport students shall have a WVDMV inspection annually, be subject to periodic maintenance with proper documentation of any repairs, and the documentation shall be made available to the county superintendent/designee upon request.

# §126-92-18. Physical Qualifications for Operators.

- 18.1. The operator shall have no mental, nervous, organic, or functional disease, or psychiatric disorder, and take no medication likely to interfere with his or her ability to operate the bus safely. (See Appendix A, Prescription and Over-the-Counter Medication Policy Template.)
  - 18.2. The duties to be performed by an operator include but are not limited to the following:
    - 18.2.a. walk from the operator's seat to the rear of the bus.
    - 18.2.b. open all emergency exits.
    - 18.2.c. install tire chains on a bus.
    - 18.2.d. raise the hood of a conventional bus and check oil levels and antifreeze levels.
    - 18.2.e. remove obstructions from windshield and under wiper blades.
    - 18.2.f. adjust all outside mirrors.
    - 18.2.a. secure a wheelchair.

# §126-92-19. Physical Examination for Operators and Contract Operators.

- 19.1. The operator shall pass an annual physical examination from a medical examiner. This examination shall be conducted no earlier than April 1<sup>st</sup> to receive certification for the following school term.
- 19.2. The county superintendent shall maintain the original of the physical examination of each operator.
- 19.2.a. The original of the physical examination of designated Head Start operators is to be maintained by the employing agency.
- 19.2.b. Physical examinations shall be recorded on the USDOT Medical Examination Report Form (for Commercial Driver Medical Certification). It is preferred that the physical examination be performed by an FMCSA Certified medical examiner because other medical providers may not be sufficiently informed regarding the physical requirements for operators to safely transport students.
- 19.2.c. All operator physical examinations are considered confidential and protected under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) (Public Law 104-191) and shall be reviewed only by approved administrative staff. Designated staff of the certifying agency (WVDE) also may review this information when warranted.
  - 19.3. The physical examination for all operators shall ensure that:
    - 19.3.a. there is no past or present history of convulsive seizures.
- 19.3.b. there is no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin. As per W. Va. Code §18A-2-4c, an operator who is currently employed by a county board or who is otherwise subject to WVBE rules governing operators and who is diagnosed with diabetes mellitus

requiring insulin is not ineligible for employment as a operator because of the diagnosis if the operator is issued a passenger endorsement for his or her commercial driver license through the intrastate waiver program pertaining to diabetes of the WVDMV, subject to the following:

- 19.3.b.1. a copy of the information required to be submitted to the WVDMV for waiver application and proof of passenger endorsement under the waiver program is submitted to his or her employer; and
- 19.3.b.2. the operator remains in compliance with the stipulations of and grounds for eligibility for the intrastate waiver.
- 19.3.c. there is no loss of use of joints of either hand that interferes with prehension or power grasping such that the applicant cannot receive or would not be able to renew a CDL with the appropriate endorsements.
- 19.3.d. average hearing loss in the better ear of the operator shall not be greater than 40 decibels (dB) at 500 Hz, 1000 Hz, and 2000 Hz with or without hearing aids. When needed, an approved hearing aid with back up batteries shall be used by the operator.
  - 19.3.e. there is no current clinical diagnosis of:
    - 19.3.e.1. myocardial infarction (heart attack).
    - 19.3.e.2. angina pectoris (chest pain).
    - 19.3.e.3. coronary insufficiency.
    - 19.3.e.4. thrombosis (blood clots).
    - 19.3.e.5. stroke (mini-strokes/TIA, paralysis or weakness).
- 19.3.e.6. other infectious diseases that would prevent the operator from performing his/her duties as determined by a public health officer.
  - 19.3.f. there is no cardiovascular disease of a variety that is accompanied by:
    - 19.3.f.1. syncope (fainting or passing out).
    - 19.3.f.2. (difficulty breathing or shortness of breath).
    - 19.3.f.3. collapse (unconsciousness).
    - 19.3.f.4. congestive cardiac failure.
- 19.3.f.5. any protein, blood, or sugar found in the urinalysis. Such a finding may indicate a need for further testing to rule out underlying medical conditions prior to the final determination that an operator is medically qualified.

- 19.3.g. if any of the conditions in sections 19.3.e.1 through 19.3.f.4 exist, a letter from a cardiologist must be presented to the county director stating that the operator is medically qualified to operate a bus.
- 19.3.h. blood pressure is less than or equal to 140 systolic and 90 diastolic (140/90). If the operator fails the blood pressure test, the operator shall provide medical evidence of three separate blood pressure readings below the identified levels on three different days within a seven day period prior to certification. These readings shall be certified by a medical examiner. When an operator is required to use a pacemaker, his/her return to work shall be approved by two cardiologists not affiliated with each other.
- 19.3.i. while performing operator duties, the operator shall wear a truss for any small hernia. Large hernias shall be surgically repaired.
- 19.3.j. there is no medical history or clinical diagnosis of the following which interferes with the ability to operate a bus safely:
  - 19.3.j.1. rheumatic disease.
  - 19.3.j.2. arthritic disease.
  - 19.3.j.3. muscular disease.
  - 19.3.j.4. neuromuscular disease.
  - 19.3.j.5. vascular disease.
  - 19.3.k. both eyes are functional and the operator:
- 19.3.k.1. has distant visual acuity of at least 20/40 (Snellen) in each eye with or without corrective lenses.
  - 19.3.k.2. does not have monocular vision.
  - 19.3.k.3. has a field of vision no less than 70 degrees in the horizontal meridian of each eye.
  - 19.3.k.4. is able to identify the colors red, green, amber, and blue.
  - 19.3.k.5. wears corrective lenses, if necessary, while operating a bus.
- 19.4. All operators using Continuous Positive Airway Pressure (CPAP) devices must meet requirements as follows:
- 19.4.a. Obstructive Sleep Apnea (OSA) precludes an individual from obtaining unconditional certification to drive a commercial motor vehicle (CMV). However, it should not exclude all individuals with the disorder. An individual with an OSA diagnosis who is receiving positive airway pressure (PAP) treatment may be certified to drive if that individual meets the following criteria:
  - 19.4.a.1. is referred to a clinician with relevant expertise;

- 19.4.a.2. has adequate PAP established through one of the following means:
  - 19.4.a.2.A. an in-laboratory titration study; or
  - 19.4.a.2.B. an auto-titration system without an in-laboratory titration.
- 19.4.b. individuals with OSA who have been treated with PAP may be certified if they have been successfully treated for a minimum of one week. Successful PAP treatment is defined as follows:
  - 19.4.b.1. demonstration of good compliance with treatment; and
  - 19.4.b.2. resolution of excessive sleepiness when driving.
- 19.4.c. individuals with OSA who are treated with PAP must demonstrate compliance with treatment by objective documentation.
- 19.4.d. compliance is defined as using PAP for the duration of total sleep time, or as prescribed by the treating provider.
- 19.4.e. optional treatment efficacy occurs with seven hours or more of use during sleep; however, four hours of documented time at pressure per major sleep episode is minimally acceptable.
- 19.4.f. based on current standards of practice, an acceptable CPAP use is at least four hours of use per night on at least five nights per week.
- 19.4.g. prior to an operator being allowed to resume driving, the clinician must provide a statement that the treatment and the operator meet these criteria. It is the operator's responsibility to keep a log of his/her compliance and provide documentation to the county director on a quarterly basis. County boards shall maintain all such records.
- 19.5. The operator shall have no mental, nervous, organic, or functional disease, or psychiatric disorder, and take no medication likely to interfere with his or her ability to operate the bus safely. (See Appendix A, Prescription and Over-the-Counter Medication Policy Template.)
- 19.6. All operators and county employees in safety sensitive positions who possess a CDL shall be subject to pre-employment, random, post-accident, and reasonable suspicion drug testing for the use of certain controlled substances and alcohol as per all regulations of OTETA. For random tests, all operators and safety sensitive employees who possess a CDL, including trainees, shall be included in the DOT drug testing pool. The pool shall be spread out evenly throughout the year. An employee who has been removed from the DOT drug testing pool for 30 days or more shall have a pre-employment drug test prior to returning to work. The county board shall develop a drug testing policy for non-CDL drivers in safety sensitive positions and those shall be in a different random pool. For post-accident, the test for alcohol shall be administered within two hours of the accident. The post-accident test for controlled substances shall be administered as soon as practical but within 32-hours of the accident. If either test cannot be administered within the required timelines, the employer shall maintain a record that states the reason the test could not be administered. Further information on required timelines may be found in FMCSA Section 382.303. Post-accident drug and alcohol tests shall be required after crashes according to the following chart:

Type of Accident Involved	Citation Issued to the Driver	Test Must Be Performed by Employer
Human Fatality	Yes	Yes
Human Fatality	No	Yes
Bodily Injury with Immediate Medical Treatment away from the Scene	Yes	Yes
Bodily Injury with Immediate Medical Treatment away from the Scene	No	Yes
Bodily Injury with Immediate Medical Treatment on the Scene	Yes	Yes
Bodily Injury with Immediate Medical Treatment on the Scene	No	Yes
Disabling Damage to Any Motor Vehicle Requiring Tow Away	Yes	Yes
Disabling Damage to Any Motor Vehicle Requiring Tow Away	No	Yes

- 19.6.a. County boards shall provide the WVDE, by certified mail, the name and Social Security number of employees who hold safety sensitive positions as described by the OTETA, and who test positive for the tested substances. The WVDE shall maintain the positive test records for two years.
- 19.7. The medical examiner shall print his/her name in the designated area as well as providing his/her signature on the physical form.

# §126-92-20. Responsibilities of Certified Operators for Renewal of Certification.

- 20.1. The operator shall notify the county director and medical examiner of any medication taken or the use of any controlled and/or over-the-counter substance that may interfere with the safe operation of a bus. (See Appendix A, Prescription and Over-the-Counter Medication Policy Template.) A list of examples of drugs that may interfere with the safe operation of a bus may be obtained from the county director or the WVDE Office of School Facilities and Transportation. The operator shall promptly notify the county director of any driving under the influence (DUI)/driving while intoxicated (DWI) charge and any moving vehicle violations received while driving any vehicle.
- 20.2. The county superintendent has the right to require a physical and/or psychological examination from a designated health care provider when he/she has any reasonable questions regarding the ability of an operator or the sufficiency of an annual physical examination.
- 20.3. The county superintendent has the right to require a physical performance examination, as referenced in section 17.2.j, be administered when he/she has any reasonable questions regarding the ability of a operator to perform his/her required duties. The physical performance exam may also be required when an operator is returning to work after an accident, injury, or extended illness in which the ability to perform his/her required duties may be in question. A WVDE-certified operator examiner or a WVDE inspector may administer the examination.

- 20.3.a. A county superintendent or other employer of operators licensed by the WVDE who knows of any acts on the part of a operator for which a certificate may be revoked in accordance with W. Va. Code §18A-4-8e or section 21 shall report the same, together with all facts and evidence, to the State Superintendent.
- 20.4. All operators, including substitutes, shall receive at least 18 hours of professional development in transportation-related subjects annually completed between July 1<sup>st</sup> of the current school term and June 30<sup>th</sup> of the following school term, in addition to staff development required by any other category of employment as part of the staff development program for job-related training for service personnel as set forth in 126CSR150A, Policy 5500.02, County Service Personnel Staff Development and Councils.
- 20.5. All operators shall pass an online examination developed by the WVDE pursuant to W. Va. Code §18A-4-8e and administered by the county board or public institution online.
- 20.5.a. For substitute operators and for operators with regular employee status but on a probationary contract, the certification test shall be administered annually.
- 20.5.b. For operators with regular employee status and continuing contract status, the certification test shall be administered triennially.
- 20.5.c. For substitute operators who are retired from a county board and who at the time of retirement had ten years of experience as a regular full-time operator, the certification test shall be administered triennially.
  - 20.5.d. The operator who fails the online examination may retake it.
- 20.6. The county board or public institution currently employing the operator shall annually submit a request for renewal of certification for the following school term to the State Director no earlier than April 1<sup>st</sup>, showing:
  - 20.6.a. passage of the annual physical examination, if applicable.
  - 20.6.b. passage of the online examination, if applicable.
- 20.6.c. completion of 18 hours of transportation-related professional development completed between July  $\mathbf{1}^{\text{st}}$  of the current school term and June  $30^{\text{th}}$  of the following school term.
  - 20.6.d. results of an annual report of the operator's DMV record.
  - 20.6.e. current first-aid and CPR certification.
  - 20.6.f. current CDL and appropriate endorsements.
  - 20.6.g. certification cards for the following term will not be issued prior to July 1<sup>st</sup>.
- 20.7. Any operator whose certification has not been renewed for two consecutive certification terms shall be considered a new applicant and shall complete all certification requirements of a new applicant.

20.8. Any operator who operates a bus fewer than five times in any given school year shall complete a minimum of six hours behind-the-wheel refresher training with a WVDE-certified operator trainer prior to the employing county board or institution requesting re-certification for any successive school year.

# §126-92-21. Reasons for Suspension, Revocation, or Non-renewal of Certification of Operators.

- 21.1. The State Superintendent may, after ten days' notice and upon proper evidence, suspend, revoke, or refuse to renew the certification, or impose any condition upon the certification of any operator upon just and sufficient cause as set forth below. There is a rational nexus between the conduct set forth below and the performance of the job as an operator. For purposes of this section, a conviction includes any plea of guilty, conditional pleas, or pleas of no contest.
- 21.1.a. Failure to meet the physical and mental/emotional requirements set forth in sections 18 and 19, as indicated from the results of any physical or psychological examination.
  - 21.1.b. Failure to pass the online examination.
- 21.1.c. Failure to complete the annual minimum 18 hours of transportation-related professional development.
- 21.1.d. Accumulation of ten or more points on DMV driving record following initial certification or conviction of reckless driving, as defined by W. Va. Code §17C-5-3, conviction for leaving the scene of an accident involving physical injury or death, as defined by W. Va. Code §17C-4-1, or conviction for obstructing an officer or fleeing an officer as defined by W. Va. Code §61-5-17.
  - 21.1.e. Conviction of a felony.
- 21.1.f. Conviction of and/or DMV suspension or revocation of license on a charge of operating a motor vehicle while under the influence of alcohol, controlled substances, any other drugs or the combination thereof, or by a preponderance of evidence, including but not limited to, positive breath, or blood test, or field sobriety results, of operating a motor vehicle under the influence of same. The applicant/employee shall not be certified to operate a bus for at least two years subsequent to a first conviction, license suspension/revocation or WVDE certification suspension/revocation. For a second offense, license suspension/revocation, or WVDE certification suspension/revocation, certification shall be revoked and refused permanently.
- 21.1.g. Failure of any drug or alcohol test administered by the operator's employer or submission of an adulterated specimen. Once notified, the operator must report to the collection site immediately. Failure or delay to do so will be considered a refusal which is equivalent to testing positive. The operator may not be certified to operate a bus for at least two years subsequent to a first positive or adulterated test result unless the operator completes a return-to-duty process which includes consultation with a substance abuse professional. For a second positive test result or adulteration, certification shall be revoked and refused permanently.
- 21.1.h. Intentional disengagement of bus safety equipment, including bus cameras, without prior authorization of county directors.

- 21.1.i. Conviction of any charge involving sexual misconduct with a minor or student. The operator may also have certification renewal refused or certification suspended or revoked when it is shown by a preponderance of evidence that he/she has a consensual sexual or amorous relationship with a student irrespective of any criminal prosecution.
- 21.1.j. A demonstration by a preponderance of evidence of frequent violations of traffic laws, sound safety practices, regulations, or ordinances while operating a bus, or any single violation while operating a bus that threatened the safety of student passengers, or other users of streets or roadways.
- 21.1.j.1. Violations of W. Va. Code §17E-1-14a, which make texting while driving a commercial motor vehicle a misdemeanor crime, will be deemed a single violation that threatened the safety of student passengers and/or other users of streets or roadways, regardless of whether an operator is prosecuted, if proven by a preponderance of evidence.
- 21.1.j.2. Violations of W. Va. Code §17C-14-15, which make talking on a cell phone while driving any vehicle a misdemeanor crime, if performed while operating a bus will be deemed a single violation that threatened the safety of student passengers and/or other users of streets or roadways, given surrounding circumstances, regardless of whether an operator is issued a traffic ticket, if proven by a preponderance of evidence.
- 21.2. The State Superintendent may after ten days notice and upon proper evidence, suspend, revoke, or refuse to renew the certification or impose any condition upon the certification of any operator for intemperance, untruthfulness, cruelty, immorality, or use of fraudulent, unapproved, or insufficient credit to obtain the certificate only if there is a rational nexus between the conduct of the operator and the performance of the job.
- 21.3. With respect to conduct for which an operator has been disciplined by the employing county board with less than termination, or has been placed upon an improvement plan that he/she is meeting or has met as determined by the county board, the operator's certificate may not be revoked unless it can be proven by clear and convincing evidence that the operator has committed one of the offenses listed in section 21 and his/her actions render him/her unfit to operate a bus.
- 21.4. If an operator's certificate has been issued or renewed through an error, oversight, or misinformation, the State Superintendent may recall the certificate and make such corrections as will conform to the requirements of law and WVBE rules.
  - 21.5. The county board shall notify the WVDE when an operator has resigned or has been terminated.

# §126-92-22. Procedures for Due Process on the Suspension, Revocation, and Recall of Operator's Certification and Establishment of the Operator Review Panel.

- 22.1. When the State Superintendent receives information concerning any of the violations set forth in section 21, the certification holder shall be notified of the pending action against him/her and afforded the opportunity for a hearing before the School Bus Operator Review Panel in accordance with Policy 1340.
- 22.2. The State Superintendent designates the West Virginia School Bus Operator Review Panel (Review Panel) to conduct hearings on operator certificate denials, suspensions, revocations, or recalls and to make recommendations for action by the State Superintendent.

- 22.2.a. The Review Panel shall consist of seven members representing the major constituents within the educational and transportation community. Included in the membership shall be: three currently employed operators, one county superintendent or principal, one county director, one designee of the State Superintendent, and one employee of the WVDOT's Division of Highways (WVDOH) with experience in commercial driver licensing and/or highway safety.
- 22.2.b. The members of the Review Panel shall be chosen as follows: two operators shall be chosen by the West Virginia School Service Personnel Association from its membership, one representative shall be chosen by the West Virginia Education Association from its membership, one representative from the American Federation of Teachers (AFT) chosen by AFT from its membership, one WVDOH representative to be chosen by the WVDOH Commissioner; the remaining two members shall be chosen by the State Superintendent.
- 22.2.c. Terms of all members shall be for a period of three years. Members may serve no more than two consecutive three-year terms. Members who have filled an unexpired term of one year or more are eligible for only one additional consecutive three-year term. All terms begin on July 1<sup>st</sup> and end on June 30<sup>th</sup>.
- 22.2.c.1. Initial appointments shall have staggered terms, with two members having an initial term of one year, two members having an initial term of two years, and three members having an initial term of three years.
- 22.2.d. Vacancies shall be filled as quickly as possible by the appropriate appointing authority. Any vacancies remaining unfilled for 90 days shall be filled by the State Superintendent.

# §126-92-23. School Bus Operator Safe Drivers' Programs.

- 23.1. National Safety Council Safe Driver Awards.
- 23.1.a. The WVBE encourages county boards to continue their support of the Safe Driver Award Programs sponsored by the National Safety Council.
  - 23.2. Bus Safety Roadeo.
- 23.2.a. The West Virginia Association for Pupil Transportation, with support from the WVDE as needed, annually sponsors a School Bus Safety Roadeo as a means of developing and refining the bus handling skills of operators.
- 23.2.b. To maximize the skill development potential and to recognize those who achieve excellence in bus handling skills, it is recommended that:
- 23.2.b.1. school transportation administrators in each county provide, as a part of their operator professional development, some type of skill development exercise in bus handling.
- 23.2.b.2. all operators be given an opportunity to annually participate in a county and/or regional school bus safety roadeo.
  - 23.2.b.3. all operators who win recognition for their safe driving skills in local competition be

provided an opportunity and encouraged to compete in regional and/or state roadeos.

23.2.b.4. county school administrators provide the opportunity and encouragement for county operators who win recognition in the State School Bus Safety Roadeo to compete in the national event.

## §126-92-24. School Bus Operator Inspection of School Bus.

- 24.1. Operators are required to make the appropriate inspection of the bus and complete specified duties prior to every assigned trip to ensure the safe transport of all passengers. The following is a list of minimum required inspections and duties and shall not be considered all-inclusive.
  - 24.2. For pre-trip inspections and duties. the operator shall:
    - 24.2.a. check tires for proper inflation and condition.
    - 24.2.b. check wheels for loose hub bolts, wheel lugs, lube leaks, etc.
    - 24.2.c. check steering for proper functioning of all components.
    - 24.2.d. check radiator coolant, windshield washer fluid, power steering fluid, oil, and fuel.
    - 24.1.e. check alternator, fan, and power steering belts.
    - 24.1.f. check lighting system(s), windshield wiper/washer, and horn.
    - 24.1.g. check brakes, including warning light and buzzer.
    - 24.1.h. check all emergency exits.
- 24.1.i. check first aid kit, fire extinguisher, communication system(s), and emergency traffic warning devices.
  - 24.1.j. check back-up alarm.
  - 24.1.k. check stop arm and crossing arm.
  - 24.1.l. check exhaust for leaks and securement.
- 24.1.m. after each run, walk to the rear of the bus and check for students, objects left on bus, trash, and vandalism.
- 24.1.n. sweep the floor, dust the seats, and remove all trash from seat frames/rails immediately following each assigned run.
- 24.1.o. clean windshield, windows, mirrors, all light lenses, and identification lettering and wash outside as necessary. All mirrors shall meet FMVSS 111 specifications at all times. A mirror grid shall be supplied at a location(s) accessible to all bus operators to ensure FMVSS 111 specifications are maintained.

- 24.1.p. keep stepwell and aisle clean and free of debris.
- 24.1.q. remove markings found on walls/ceiling.
- 24.1.r. keep loose objects, tire chains, wheel chair restraints, etc., off the floor in a secure location.
- 24.1.s. keep glove compartment clean and well-organized.
- 24.1.t. be sure that there are no aerosol cans inside the bus. Properly labeled spray bottles are to be stored out of sight.
  - 24.2. For an inspection during a trip, the operator shall:
    - 24.2.a. watch gauges for signs of trouble.
    - 24.2.b. use his/her senses (look, listen, smell) to check for problems.
    - 24.2.c. stop at least every two hours or 100 miles (whichever comes first) and check:
      - 24.2.c.1. tires, wheels, rims.
      - 24.2.c.2. brakes.
      - 24.2.c.3. lights.
      - 24.2.c.4. doors.
  - 24.3. For a post-trip inspection, the operator shall:
    - 24.3.a. check the tires, brakes, lights, and emergency signaling devices.
    - 24.3.b. report any problems to the county director or head/chief mechanic.
- 24.3.c. conduct a walk-through inspection of the bus following drop-offs at each school and after the last delivery on each run segment. Prior to departing the bus for any length of time, a walk-through inspection must be conducted. The purpose of the walk-through inspection is to check on and under the seats for sleeping or hiding students and to identify any items that may have been left aboard the bus. Warning flag systems and/or electronic means may be used. Written policies and procedures should be in place for post-trip and post-run segment checks. Operators having multiple runs of which there is a delay between each (e.g. 10-30 minutes) shall, at a minimum, conduct a walk-through inspection and an outside walk-around inspection of the bus. Curricular and extra-curricular trips shall require at a minimum an inside and outside inspection for damage or vandalism prior to departure from the site.
- 24.3.d. Prepare a written verification of the operator's examination of the interior of the bus for students, loose items, and damage if the vehicle is not equipped with a child minder.
  - 24.4. For weekly duties, the operator shall:

- 24.4.a. mop the bus floor. At no time shall a water hose or power washer be used on the interior of the bus.
  - 24.4.b. clean interior upholstery with a damp cloth.
  - 24.4.c. wash the exterior of the bus.

## §126-92-25. County Bus Transportation and Maintenance Systems.

- 25.1. The county superintendent shall ultimately determine the structure and staff needed to deliver a quality program. In addition to the pertinent sections of W. Va. Code and the preceding regulations, the WVBE recommends the following.
  - 25.2. Bus maintenance center equipment should include:
- 25.2.a. hoists, jacks, lifts, and/or service pits to enable repair and servicing in a safe and efficient manner.
- 25.2.b. adequate diagnostic equipment to facilitate preventive adjustments and repairs.
  - 25.2.c. necessary tools for efficiency in performing the service.
  - 25.2.d. adequate place for washing buses, preferably inside.
  - 25.2.e. adequate storage for stocking and identifying parts.
  - 25.2.f. protective equipment.
  - 25.3. Personnel/Staffing.
    - 25.3.a. Maintenance center staff may vary with the number of vehicles to be maintained.
      - 25.3.a.1. one mechanic for nine buses.
      - 25.3.a.2. one mechanic and one assistant for a fleet of ten to 18 buses.
- 25.3.a.3. one additional mechanic and one additional assistant for each additional 16 buses over 18 buses.
  - 25.4. Training.
    - 25.4.a. Maintenance center personnel shall:
- 25.4.a.1. participate in job-related professional development as approved by the county school service personnel staff development council. A minimum of 18 hours is required annually.
  - 25.4.a.2. participate in specific industry job-related maintenance and repair workshops.

- 25.4.a.3. participate in state and regional job-related workshops, seminars, and conferences.
- 25.4.b. Those individuals designated as county director shall undergo training in bus operation, emergency procedures, personnel law, and regulations. Annual professional development shall include six to ten hours of content in safety and transportation.
  - 25.5. Transportation to Alternative Education Sites.
    - 25.5.a. Buses transporting students to these sites should be equipped with the following:
      - 25.5.a.1. an effective means of communication such as cellular phone or two-way radio.
      - 25.5.a.2. a large mirror in the rear of the bus.
      - 25.5.a.3. a video camera.
      - 25.5.a.4. an aide, another operator, or a staff member from the alternative school.
  - 25.6. Transportation of Students with Disabilities.
- 25.6.a. It is recommended that buses used to transport students with disabilities be equipped with cellular telephones and two-way radios.
- 25.6.b. The operator shall conduct and supervise emergency exit drills at least twice a year. The procedures are as follow:
  - 25.6.b.1. drills are to be conducted on county school property.
  - 25.6.b.2. school officials including bus aides shall assist in the drills as the need arises.
  - 25.6.b.3. wheels shall be chocked during the drill.
- 25.6.b.4. drills shall include students exiting through the front and rear door, instructions on the proper use of exit windows, roof hatches, and other equipment/instruments used to assist with emergencies.
- 25.6.b.5. care shall be given in determining the level of involvement students with disabilities may have during the drill. Some students' healthcare requirements or medical conditions may preclude them from participating, especially when in a wheelchair. However, appropriate measures shall be taken, such as preparing a plan of action to ensure the safety of all occupants, even if they cannot participate in the drill. Operators and aides shall have a plan in place and know their responsibilities if the need arises.
  - 25.6.b.6. upon completion, the date of the drills shall be reported to the county director.
  - 25.7. Sale of Surplus Items.
    - 25.7.a. Any proceeds received from the sale of surplus buses, obsolete or scrap parts or equipment,

warranty claims or insurance claims are encouraged to be returned to the county transportation department for the purchase of new buses.

## §126-92-26. Inspection and Maintenance of Buses.

- 26.1. Vehicle Inspection.
- 26.1.a. Pursuant to W. Va. Code §17C-16-2, any member of a department of public safety may stop and inspect a bus at any time.
- 26.1.b. Qualified bus inspectors are employed by the State Superintendent and may inspect a bus at any time without prior notice.
- 26.1.c. All buses transporting students to school and/or school-related events shall be inspected by a qualified bus inspector annually during the fiscal year (July 1 June 30).
- 26.1.c.1. The State Director shall supervise the scheduling of bus inspections and may require additional and random inspections of buses.
- 26.1.c.2. The operator shall be required to present to the bus inspector a valid commercial drivers license, a first aid certificate, and a State of West Virginia certification card at the time of inspection.
- 26.1.c.3. All buses used to transport students shall be inspected and display a valid inspection certificate.
- 26.1.d. A bus used to transport students that is involved in an accident which causes damage to any steering component, front axle or frame, or any major structural damage requiring the bus to be towed, must be inspected and approved by a WVDE bus inspector prior to returning to service.
- 26.1.d.1. Any seat belts (driver's seat belt, seat belts anchoring child restraints, wheelchair restraints, etc.) in use at the time of a moderate to severe accident shall be replaced. Additionally, the CSRS, if in use, shall be replaced following a moderate to severe accident. CSRS do not automatically need to be replaced following a minor accident. A minor accident is one in which all of the following apply:
  - 26.1.d.1.A. the vehicle was able to be driven away from the crash site.
  - 26.1.d.1.B. the area of the vehicle nearest the CSRS was not damaged.
  - 26.1.d.1.C. none of the passengers in the vehicle sustained any injuries in the crash.
  - 26.1.d.1.D. if the vehicle had air bags, they were not deployed during the accident.
  - 26.1.d.1.E. there was no visible damage to the CSRS.
- 26.1.e. Any bus used to transport students which is declared unsafe is to be marked with the appropriate rejection sticker.
  - 26.2. County Bus Maintenance.

- 26.2.a. The county board shall establish a bus maintenance program. At no time shall any other vehicle maintenance take priority over bus maintenance. The maintenance program may be delivered by the county board or through a private contractor.
- 26.6.b. The maintenance program shall employ mechanics and service employees skilled in school bus maintenance.
- 26.6.c. The county board shall ensure that the maintenance staff members receive at least 18 hours of professional development in school bus maintenance and repair annually.
- 26.6.d. An inventory of the bus vehicle parts shall be completed annually and made available at the county maintenance center.
- 26.6.e. Maintenance records for buses shall be current and made available at the county maintenance center for review by the WVDE bus inspector upon request.
- 26.6.f. A preventive maintenance inspection shall be performed on all buses (including spares) every month (or every 20 operating days). A preventive maintenance schedule for each bus shall be posted in the county maintenance center, made available to the bus operator, and to the WVDE bus inspector upon request.
- 26.6.g. All county-owned facilities including bus maintenance centers are subject to inspection by the WVDE Office of School Facilities and Transportation staff per W. Va. Code §18-9D-16(c).

# §126-92-27. Incorporation by Reference - West Virginia Minimum Requirements for Design and Equipment of School Buses.

27.1. West Virginia Minimum Requirements for Design and Equipment of School Buses is incorporated by reference.

## §126-92-28. Severability.

28.1. If any provision of this policy or application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this policy.

# WEST VIRGINIA MINIMUM REQUIREMENTS FOR DESIGN AND EQUIPMENT OF SCHOOL BUSES

**NOTE:** Equivalency - Permission to use a device or material as an "equivalent" to that called for in the "requirements" must be requested in writing by the manufacturer or owner. Any item supplied as an "equivalent" must have prior approval in writing from the West Virginia Department of Education (WVDE) Executive Director of the Office of School Facilities and Transportation (State Director).

New Products - New products may be subjected to the experimental and field test evaluation procedures facilitated by the WVDE Office of School Facilities and Transportation staff. The staff in conjunction with the State Director may determine the county(ies) in which the field test evaluation will be conducted and the length of time of the evaluation.

Changes - Any proposed changes in design or equipment by counties after receipt of the school bus must have prior approval in writing from the State Director.

## 1. School Bus Chassis.

## 1.1. Air Cleaner.

1.1.a. The engine intake air cleaner shall be dry element type and properly installed by the chassis manufacturer to meet engine specifications. The manufacturer shall provide an air restriction indicator device. Exception: Type D vehicles with engine in rear are required to have a clearly visible air restriction indicator mounted in the engine compartment.

# 1.2. Axles.

- 1.2.a. The front and rear axles including suspension assemblies and all frame-to-ground components shall have a gross axle weight rating (GAWR) at ground at least equal to that portion of the load as would be imposed by the chassis manufacturer's maximum gross vehicle weight rating.
- 1.2.b. All vehicles shall be equipped with appropriate GAWR axles or suspension systems and tires by chassis manufacturer.
- 1.2.c. The front axle shall be heavy-duty bus type and equipped with oil bath (synthetic lubricant) wheel bearings. Exception: Type A buses.

## 1.3. Back Up Alarms.

- 1.3.a. All buses shall be equipped with an audible electrical warning device, automatically actuated when the bus is in reverse gear.
- 1.3.b. The device shall be of 112 decibels (dB), meeting Society of Automotive Engineers (SAE) J994B. The device shall be mounted behind the rear axle, between the frame rails, and shall emit an intermittent sound. Variable sound is not permitted.

- 1.4. Brakes (Air).
  - 1.4.a. A braking system including a service brake and parking brake shall be provided.
- 1.4.b. Buses using an air-operated braking system shall be equipped with a Wig-Wag warning device and/or devices readily audible, which have a minimum rating of 80 dB and a maximum rating of 85 dB measured at the operator's ear and visible to the operator. The device will give a continuous warning when the air pressure available in the system for braking is 60 pounds per square inch (psi) or less and must remain activated until the system is at or above 60 psir. An illuminated gauge that will indicate to the operator the air pressure in pounds per square inch or the inches of mercury vacuum available for the operation of the brakes shall be provided. An anti-lock braking system (ABS) shall be standard on units with air brakes.
- 1.4.b.1. Air brakes shall be installed on all chassis. Exception: Electric-powered vehicle, Type A and less than 35 passenger vehicles.
  - 1.4.b.2. All air-operated brake systems shall:
- 1.4.b.2.A. have S-Cam type on all wheels incorporating a long-stroke brake chamber. Exception: Air Disc.
  - 1.4.b.2.B. use the same brand of automatic slack adjuster on each axle. Exception: Air Disc
  - 1.4.b.2.C. have at least 13.2 cubic feet per minute (CFM) air compressor.
- 1.4.b.2.D. be protected by a desiccant type air dryer with an Air Dryer Internal Purge (ADIP) or equivalent spin-on replaceable filter.
- 1.4.b.2.E. be equipped with an engine or an exhaust brake. A clearly identified manual control shall be within easy reach of the operator, in addition to a modulated control through the brake treadle valve. Exception: Propane and gasoline school buses. Propane and gasoline buses may be equipped with driveline retarder systems.
- 1.4.b.2.F. have a Schrader valve to charge the school bus air system in the event of a compressor failure.
  - 1.4.b.2.G. be equipped with long stroke welded clevis air chambers. Exception: Air Disc
  - 1.4.b.2.H. be equipped with automatic slack adjusters. Exception: Air Disc
  - 1.4.b.3. Air disc type brakes installed by chassis manufacturers are permissible.
- 1.4.b.4. All air brake systems shall be designed to permit visual inspection of brake lining wear without removal of any chassis components.
- 1.4.b.5. Any brake system dry reservoir shall be safeguarded by a check valve or equivalent device so that, in the event of failure or leakage in its connection to the source of compressed air or vacuum, the stored dry air or vacuum shall not be depleted by the leakage or failure.

- 1.5. Brakes (Hydraulic).
  - 1.5.a. Buses using a hydraulic assist-booster in the operation of the brake system shall:
- 1.5.a.1. be equipped with warning signals that are readily audible and visible to the operator and that will provide continuous warning in the event of a loss of fluid-flow from the primary source or loss of electric source powering the back-up system.
- 1.5.a.2. be equipped with a source of hydraulic pressure, automatically initiated upon loss of power from primary source, and operating independently of the primary power source.
- 1.5.b. All brake lines and power and booster-assist lines shall be protected from excessive heat and vibration and be installed to prevent chafing.
- 1.5.c. All brake systems shall be designed to permit visual inspection of brake lining wear without removal of any chassis components. Exception: Type A
  - 1.6. Brake (Parking).
- 1.6.a. The parking brake, when applied, shall remain in the applied position despite exhaustion of source of energy used for application or leakage of any kind.
- 1.6.b. All non-park pawl transmissions shall incorporate a park brake interlock that requires the service brake to be applied to allow release of the parking brake.
  - 1.6.c. The parking brake knob shall be an easy-grip design.
  - 1.7. Bumpers.
  - 1.7.a. All bumpers are to comply with the National School Transportation Specifications and Procedures (NSTSP) and shall be painted black or manufacturer's standard. (See subsection 2.5.a.2.).
    - 1.7.b. Exception: Type A.
  - 1.8. Certification.
- 1.8.a. The bus manufacturer and the bus dealer shall certify in writing to the State Director that the product meets all applicable federal and state requirements.
- 1.8.b. The first production unit of each type shall be used as a "pilot model" and shall be inspected at the manufacturing facility or a location to be determined by the State Director in consultation with the dealer prior to any remaining units being produced.
- 1.8.c. The bus shall have a data tag installed on the bus that states the maximum seating capacity which includes the driver.
  - 1.9. Differential.

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- 1.9.a. The differential ratio shall be determined by the dealer to provide the best possible fuel economy/performance balance.
  - 1.9.b. In no case shall the ratio be used to limit road speed.
  - 1.10. Drive Shaft.
- 1.10.a. The torque capacity of the drive shaft assembly shall exceed the maximum engine torque as developed through the lowest transmission gear reduction.
- 1.10.a. Each drive shaft section shall be protected by a metal guard or guards around the circumference of the drive shaft to prevent whipping through the floor or dropping to the ground if broken.
  - 1.11. Electrical System.
    - 1.11.a. Battery.
- 1.11.a.1. Diesel Power: Three Group 31 batteries with a minimum of 1950 cold cranking amps (CCA) total are required. Exception: Type A gasoline-powered buses shall have two batteries.
- 1.11.a.2. Battery cables of sufficient length without splices shall be provided by the chassis manufacturer.
- 1.11.a.2.A. All cables shall conform to the Society of Automotive Engineers (SAE) Standard J541 with respect to electrical resistance.
- 1.11.a.2.B. All cable assemblies shall conform to American Trucking Association-Truck Maintenance Council (ATA-TMC) RP105.
  - 1.11.a.2.C. The manufacturer shall assure continuous ground integrity.
- 1.11.a.3. Batteries for Type A, C, and D vehicles shall be mounted in the body skirt by the body manufacturer.
  - 1.11.a.4. All cables, mounting, etc., shall conform to current design specifications.
- 1.11.a.5. The body manufacturer will be responsible for final cable and connections between batteries.
- 1.11.a.6. All buses shall be equipped with a body battery disconnect switch to allow the electrical source on the bus body to be turned off in case of an electrical short and when the bus is not in use.
- 1.11.a.7. The switch is to be placed in a location not readily accessible to the driver or passengers.
  - 1.11.a.8. The location shall be labeled and the labeling shall be visible from the exterior of the

bus.

- 1.11.b. Alternator.
- 1.11.b.1. All Type C and D vehicles shall have an alternator with a minimum charging rate of at least 200 amperes. All buses equipped with a wheelchair lift and/or air conditioning shall have a minimum of 240 amperes. Exception: Type A must use the manufacturer's highest possible capacity alternator.
- 1.11.b.2. The belt drive shall be capable of handling the rated capacity of the alternator with no detrimental effect on other drive components.
  - 1.11.c. Lamps and Signals.
- 1.11.c.1. USA daytime running lamps are required and will be activated at all times that the engine is running.
  - 1.11.d. Wiring.
- 1.11.d.1. All wiring shall conform to current applicable recommended practices of the Society of Automotive Engineers, with the capability of carrying a ten percent overload without damage to wiring circuits. All wiring shall use a standard color coding and each chassis shall be delivered with a wiring diagram that coincides with the wiring of the chassis.
- 1.11.d.2. Chassis voltmeter and wiring shall be compatible with generating capacity. Type A vehicles may have an ammeter in lieu of a voltmeter.
- 1.11.d.3. In addition to the main 100 amperes body circuit terminal, the chassis manufacturer shall provide the following terminals for body connections:
  - 1.11.d.3.A. tail lamps.
  - 1.11.d.3.B. right turn signal.
  - 1.11.d.3.C. left turn signal.
  - 1.11.d.3.D. stop lamps.
  - 1.11.d.3.E. back-up lamps.
  - 1.11.d.3.F. instrument panel lamps, (rheostat controlled).
  - 1.11.d.3.G. ignition circuit.
  - 1.12. Exhaust System.
- 1.12.a. The after-treatment device and the tailpipe shall be outside the bus body and attached to the chassis, with hangers designed to accommodate expansion and contraction of the system without damage to the system or hanger(s).

- 1.12.b. The tailpipe shall be constructed of a corrosion-resistant tubing material at least equal in strength and durability to 16-gauge steel tubing.
- 1.12.c. The tailpipe shall be flush with but not extend more than one inch beyond the perimeter of the body.
  - 1.12.d. A left side exit is permissible.
- 1.12.e. The size of the tailpipe shall not be reduced after it leaves the muffler/after treatment device.
  - 1.13. Fenders, Front.
    - 1.13.a. Type C vehicles.
- 1.13.a.1. The front fenders shall be properly braced and free from any body attachment. Adequate clearance shall be maintained between tires and fenders so that contact will not occur.
- 1.13.a.2. A fiberglass tilt hood shall be provided with wiring quick-disconnect in the engine compartment, located at or near the radiator cradle. All electrical wiring between the fiberglass hood and the engine compartment shall pass through waterproof disconnect device(s) to facilitate removal and/or replacement of the hood.
  - 1.13.a.3. The body manufacturer will furnish the mud flaps.
- 1.13.a.4. The fender/bumper design must prevent direct road spray between fender and front bumper, or a flap must be installed to prevent such spray.
  - 1.14. Frame.
- 1.14.a. The frame or equivalent shall have the design and strength characteristics to correspond at least to standard practice for trucks of the same general load characteristics which are used for highway service.
- 1.14.b. Any secondary manufacturer that modifies the original chassis frame shall guarantee the performance of workmanship and materials resulting from such modification.
  - 1.14.c. Any frame modification shall not be for the purpose of extending the wheelbase.
- 1.14.d. Holes in top or bottom flanges of the frame side rail shall not be permitted except as provided in the original chassis frame. There shall be no welding to frame side rails except by the chassis or body manufacturers.
  - 1.14.e. Frame rails less than 50,000 psi must be reinforced to prevent cracking.
  - 1.15. Fuel Tank.

- 1.15.a. The fuel tank on all buses 47 passengers and above shall have a minimum capacity of 60 gallons with a 55-gallon actual draw. It shall be filled and vented outside of the body. Construction will prevent the spillage or drainage of fuel on any part of the exhaust system. Exception: Type A vehicles. The fuel tank shall be the manufacturer's standard. All fuel tanks shall be constructed per the manufacturer's standards and with corrosion-resistant material.
- 1.15.b. No portion of the fuel system located to the rear of the engine compartment, except the filler tube, shall extend above the top of the chassis frame rail.
- 1.15.c. Fuel lines shall be mounted to obtain maximum protection from the chassis frame. The engine supply line shall be taken from top of tank.
- 1.15.d. The fuel filter with a replaceable element shall be installed between the fuel tank and the injector pump. A flexible gasoline and oil-proof connection shall be provided at the engine end of the fuel line.
- 1.15.e. A drain plug of at least ¼ inch pipe thread shall be located in the center of the bottom of tank.
- 1.15.f. A fill-pipe cap shall be designed to minimize spillage of fuel when the bus turns a corner in either direction. If venting of the fuel tank is done other than through the fill-pipe cap, the cap shall be of a non-vented type. (See provision for fuel systems in FMCSA regulations.)
  - 1.15.g. A port shall be provided in the fuel tank for auxiliary equipment.
  - 1.16. Governor.
    - 1.16.a. The speed shall be controlled electronically, set at a max speed of 65 MPH.
  - 1.17. Heating System, Provision For.
- 1.17.a. The chassis engine shall have plugged openings for the purpose of supplying hot water for the bus heater system. The opening shall be suitable for attaching a ¾ inch pipe thread/hose connector. The engine shall be capable of su water, having a temperature of at least 170 degrees Fahrenheit, at a flow rate of 50 pounds per minute at the return end of 30 feet of a one inch diameter automotive hot water heater hose.
- 1.17.b. The SAE 20R3 Class D2 hose shall be used throughout the bus heating systems. An engine cooling system hose shall meet the applicable SAE Standard.
  - 1.18. Horn(s).
- 1.18.a. A bus shall be equipped with dual horns of standard make, capable of producing complex sound in bands of audio frequencies between 250 and 2000 cycles per second with a sound level of 110 dB at three feet, per SAE Standard J377. The measurement shall be made with the meter set at flat response C weighting.
  - 1.18.b. Air horns are not permissible.

- 1.19. Instruments and Instrument Panel.
  - 1.19.a. Lamps in lieu of gauges are not permissible.
  - 1.19.b. Chassis shall be equipped with the following instruments and gauges:
    - 1.19.b.1. speedometer.
    - 1.19.b.2. odometer or trip meter to give accrued mileage including tenths of miles.
    - 1.19.b.3. voltmeter with graduated scale to 16 volts. Exception: Type A
- 1.19.b.4. oil pressure gauge with a red warning lamp to warn of low pressure. If equipped with low oil pressure warning buzzer, the buzzer shall only be activated when ignition switch is in "ON" position.
  - 1.19.b.5. water temperature gauge with red warning lamp to indicate overheating.
  - 1.19.b.6. fuel gauge.
  - 1.19.b.7. upper beam head lamp indicator.
- 1.19.b.8. brake indicator gauge (air). A lamp indicator in lieu of a gauge is permissible on vehicles equipped with a hydraulic-assist power brake.
  - 1.19.b.9. turn signal indicator.
  - 1.19.b.10. automatic transmission temperature gauge. Exception: Type A
  - 1.19.b.11. tachometer. Exception: Type A
  - 1.19.b.12. wait to start indicator lamp where appropriate. Exception: Type A
  - 1.19.c. All instruments shall be easily accessible for maintenance and repair.
- 1.19.d. Instruments and gauges shall be mounted on an instrument panel clearly visible to an operator while in normal seated position.
- 1.19.e. The instrument panel shall have lamps of sufficient candlepower to illuminate all instruments, gauges, and shift selector indicator for automatic transmission.
  - 1.20. Oil Filter.
- 1.20.a. An oil filter, replaceable element, or cartridge-type shall be provided and shall be connected by flexible oil lines if it is not of built-in or engine-mounted design.
  - 1.20.b. The oil filter shall have a minimum capacity of one quart.

1.20.c. Exception: Type A shall be manufacturer's standard size.

## 1.21. Openings.

1.21.a. All openings in the floorboard or fire wall between the chassis and passenger carrying compartment, such as gear shift lever and parking brake lever, shall be sealed.

## 1.22. Passenger Load.

- 1.22.a. Gross Vehicle Weight (GVW) is the sum of the chassis weight, plus the body weight, the operator's weight, and total seated pupil weight.
  - 1.22.a.1. For purposes of calculation, the operator's weight is 150 pounds.
  - 1.22.a.2. For purposes of calculation, the pupil's weight is 120 pounds.
- 1.22.b. Actual GVW shall not exceed the chassis manufacturer's gross vehicle weight rating (GVWR) for the chassis.
  - 1.23. Power and Gradeability.
- 1.23.a. GVW shall not exceed 185 pounds per certified net published horsepower of the engine at the manufacturer's recommended maximum number of revolutions per minute.
  - 1.23.b. Gasoline and propane power are permissible in buses carrying 78 or fewer passengers.
- 1.23.c. It is recommended that county boards of education request assistance from WVDE Office of School Facilities and Transportation staff in determining the proper type of power for purchase based on location and use of buses (e.g., diesel, gasoline, Liquefied Petroleum Gas (LPG), and Compressed Natural Gas (CNG).
- 1.23.d. The following chart presents the minimum horsepower (HP) and/or torque requirements for engines to be used in chassis-accommodating bus bodies of the respective capacities.

DIESEL POWER	
Passenger	Minimum Gross
Capacity	Horsepower/Torque
Under 35	130HP/420
35 - 46	200HP/520
47 - 64	220HP/520
65 - 78	230HP/560
79 - 83	240HP/620
84 - 91	245HP/660

1.23.e. Type C and D vehicles, including propane and gasoline, shall be equipped with a fast idle control device.

- 1.23.f. All engines shall be equipped with an automatic engine cooling fan.
- 1.23.g. A recessed and covered receptacle for the block heater shall be mounted in the front bumper. Exception: Types A and D vehicles under 35 passengers, manufacturer's standard. Type D vehicles, rear engine receptacle shall be located in the rear; and Type D vehicles, front engine receptacle may be mounted to the bus body in front of the service door. Propane and gasoline powered vehicles are not required to meet this standard.
  - 1.23.h. An electrical key shut down shall be required.
  - 1.23.i. An installed closed combustion fuel fired heater is not permissible.
- 1.23.j. The warranty for the engine shall be a minimum five years/100,000 miles. All available warranty information must be provided to the purchaser.
  - 1.23.k. Firewall insulation is required. Exception: Rear engine vehicles.
  - 1.23.I. A maximum idle time shall be set at ten minutes. Exception: Lift-equipped buses.
  - 1.24. Radiator.
- 1.24.a. Radiator shall be equipped to provide a visual fluid level inspection without removal of the radiator cap.
  - 1.24.b. The fluid level indicator must be positioned as to afford easy visibility from the ground.
  - 1.25. Shock Absorbers.
- 1.25.a. Buses shall be equipped with front and rear double-action shock absorbers at each wheel location compatible with the manufacturer's rated axle capacity.
  - 1.26. Springs/Suspension.
    - 1.26.a. Air suspension systems are standard on rear axle only. Exception: Type A
- 1.26.b. The clearance between springs and tire and between tires shall provide ample space for use of triple-side dual chains.
  - 1.27. Stability Control.
    - 1.27.a. The Electronic Stability Control shall be provided. Exception: Types A and D
  - 1.28. Steering Gear.
- 1.28.a. All chassis shall be equipped with heavy-duty power steering of integral type with integral valves.
  - 1.28.b. The design shall provide a means of lubrication for all wear points, if wear points are not

permanently lubricated.

- 1.28.c. The steering mechanism shall provide for easy adjustment for lost motion.
- 1.28.d. No changes shall be made in the steering apparatus which are not approved by the chassis manufacturer.
- 1.28.e. There shall be clearance of at least two inches between the steering wheel and the cowl instrument panel, windshield, or any other surface.
- 1.28.f. All chassis shall be equipped with a tilt steering wheel having a minimum diameter of 18 inches.
  - 1.29. Tires and Rims.
- 1.29.a. Standard profile tubeless tires and rims of proper size with load ratings that equal or exceed axle ratings in these requirements shall be provided.
  - 1.29.b. Dual rear tires shall be provided.
  - 1.29.c. First line steel belted radial tires are required.
  - 1.29.d. Hub piloted wheels are standard. Stud piloted disk wheels are optional.
  - 1.29.e. The bus must have the original installed tire size on the data plate.
  - 1.29.f. Aluminum or chrome wheels and/or covers are not permissible.
  - 1.30. Tow Hooks.
- 1.30.a. Front and rear tow hooks shall be installed by the chassis manufacturer and shall be at least 200 degrees spiral, have a minimum inside diameter of 2.4 inches, and be mounted parallel to the bus frame rail.
- 1.30.b. Hooks shall be mounted in such a manner that the danger of the hooks becoming accidentally caught on objects on the ground is reduced. (Horizontally mounted is preferred.) Exception: Type A rear tow hooks only.
  - 1.31. Transmission.
- 1.31.a. Automatic transmissions shall be equivalent to either the Allison 2500 Pupil Transport Series (PTS) five or six-speed or the Eaton Auto Shift transmission for buses of 35 to 76 passenger capacity inclusive or the 3000 PTS five or six-speed for buses of 77 to 90 passenger capacity.
- 1.31.b. The minimum fluid requirement for the automatic transmission is to be Allison or Eaton approved synthetic fluid.
  - 1.31.c. The warranty for the transmission shall be a minimum of five years/unlimited mileage.

Exception: Type A propane and gasoline can be manufacturers' standard.

- 1.31.d. Transmissions shall be programmed at the factory in the performance mode as the default setting.
  - 1.32. Turning Radius.
- 1.32.a. Chassis with a wheelbase of 264 inches or less shall have a right and left turning radius of not more than 42½ feet, curb-to-curb measurement.
- 1.32.b. Chassis with a wheelbase of 265 inches or more shall have a right and left turning radius of not more than 44½ feet, curb-to-curb measurement.

## 2. School Bus Body.

- 2.1. Aisle.
  - 2.1.a. All emergency exit doors shall be accessible by a 12 inch minimum aisle.
- 2.1.b. The aisle shall be unobstructed at all times by any type of barrier, seat, wheelchair or tiedown, unless a flip seat is installed and occupied.
- 2.1.c. The track of a track seating system is exempt from this requirement. A flip seat in the unoccupied (up) position shall not obstruct the 12 inch minimum aisle to any side emergency exit door.
  - 2.2. Body Fluid Clean-Up Kit.
- 2.2.a. Each bus shall carry a Grade A metal or rigid plastic kit, mounted in an accessible place and identified as a body fluid clean-up kit with a directions-for-use sheet attached to the inside cover.
  - 2.2.b. The kit shall be moisture resistant.
  - 2.2.c. Contents shall include but not be limited to the following items:
    - 2.2.c.1. one pair non-latex gloves.
    - 2.2.c.2. one pick-up spatula or scoop.
    - 2.2.c.3. one face mask.
    - 2.2.c.4. infectious liquid spill control powder.
    - 2.2.c.5. anti-microbial hand wipes individually wrapped.,
    - 2.2.c.6. germicidal disinfectant wipes tuberculocidal.
    - 2.2.c.7. plastic bag with tie.

- 2.2.c.8. an optional STOP THE BLEED KIT.
- 2.3. Ceiling. (See Insulation and Interior.)
- 2.4. Child Reminder System.
- 2.4.a. An electronic device shall be installed that requires the bus operator to walk to the rear of the bus after each run to deactivate and to check for children left on the bus.
  - 2.4.b. The device shall only be armed after the activation of the student loading light system.
- 2.4.c. There shall be an audible and/or visual warning to indicate to the bus operator the system has been armed.
- 2.4.d. A horn shall begin sounding either by opening the entrance door or within a 30 to 60-second delay after the system has been armed. Type A shall activate when the left side driver's door is opened also.
  - 2.5. Color.
- 2.5.a. The school bus body shall be painted uniform "National School Bus Glossy Yellow" in compliance with NSTSP.
- 2.5.a.1. The hood, cowl, and fenders shall be National School Bus Glossy Yellow. Exception: Hood may be painted low luster yellow.
- 2.5.a.2. The chassis shall be black. The grille may be the manufacturer's standard and shall not be chrome.
- 2.5.b. Reflective material shall be installed on the bus. Material shall be automotive engineering grade or better, meeting initial reflectance values in Federal Highway Administration (FHA) FP-85 and retaining at least 50 percent of those values for a minimum of six years. Reflective materials and markings shall include all of the following:
- 2.5.b.1. "SCHOOL BUS" signs shall be marked with reflective National School Bus Glossy Yellow material comprising background for lettering of the front and rear "SCHOOL BUS" signs.
- 2.5.b.2. The sides of the bus body shall be marked with reflective National School Bus Glossy Yellow material at least one and ¾ inches but not more than two inches in width, extending the length of the bus body and located (vertically) as close as practicable to the floor line. Emergency window exits shall be marked with no greater than one and ¾ inches in width strip of reflective National School Bus Glossy Yellow material. The top, bottom, and each side shall be outlined.
  - 2.5.b.3. The rear of the bus shall have the lettering STOP WHEN RED LIGHTS FLASH.
- 2.5.b.4. The rear of the bus body shall be marked with strips of retro-reflective material a minimum of one inch and a maximum of two inches in width to outline the perimeter of the rear of the bus.
  - 2.6. Construction.

- 2.6.a The construction shall be of prime commercial quality steel or other material with strength at least equivalent to all steel as certified by the body manufacturer. Fiberglass or other composite materials are acceptable provided the construction meets all federal standards and the manufacturer certifies the materials to be of durable construction.
  - 2.5.b. The construction shall meet the NSTSP for the Side Intrusion Test.
  - 2.5.c. The bus body shall meet the Colorado Rack Test.
- 2.5.d. Bus bodies shall have a minimum 77 inches headroom. Exception: Type A minimum 62 inches.
  - 2.7. Doors.
    - 2.7.a. Service Door.
- 2.7.a.1. A service door shall be under the control of the operator, designed to afford easy release and prevent accidental opening, and controlled by a three-position switch that is installed to the left of the operator. Exception: Type A may be to the right. When the hand lever is used, no part shall come together to shear or crush fingers. A power-operated service door is required on Type A, C, and D buses. The service door emergency release shall be located below the windshield, accessible and identified to all passengers.
- 2.7.a.2. The service door shall be located on right side of the bus opposite operator and within direct view of operator. A decal shall be installed on the inside of the door with proper opening instructions when the front or rear side requires it to be released first.
- 2.7.a.3. The service door shall have a minimum horizontal opening of 24 inches and minimum vertical opening of 68 inches.
- 2.7.a.4. The service door shall be an outward opening door equipped with a grab handle on the outside of the door.
- 2.7.a.5. There shall be no door to the left of the operator on Type C and D vehicles. Type A vehicles under 35 passengers may be equipped with the chassis manufacturer's standard door.
- 2.7.a.6. All doors shall be equipped with padding at the top edge of each door opening. The pad shall be at least three inches wide and one inch thick and extend the full width of the door opening.
- 2.7.a.7. The service door shall be equipped with a vandal lock. Exception: Type A, exterior lock not permissible.
- 2.7.a.8. Stainless steel hand rails, sufficiently anchored and designed with a smooth contour to prevent catching of belts or articles of clothing as evidenced by passing the National Highway Traffic Safety Administration (NHTSA) string and nut test, shall be provided on the rearward and forward side of the service door entrance.

- 2.7.b. Emergency Door.
- 2.7.b.1. A vandal lock shall be installed on all emergency doors. It shall be wired into the ignition and/or starting circuit to prevent starting of the engine with the door locked.
- 2.7.b.2. The vandal lock shall be equipped with an audible alarm to alert the driver that the vandal lock is engaged.

## 2.8. Emergency Exits.

- 2.8.a. The body of the bus shall be equipped with roof safety hatches that combine the following functions in each unit:
  - 2.8.a.1. multi-position, fresh air ventilation without static vents.
- 2.8.a.2. a full handgrip release handle(s) permitting operation as emergency exit(s), accessible inside and outside the vehicle.
  - 2.8.b. Each emergency exit shall comply with the current adopted version of the NSTSP.
  - 2.9. Fastening Devices/Belt Cutter.
- 2.9.a. Each bus shall be equipped with a durable webbing cutter having a full-width handgrip and a protected, replaceable, or non-corrodible blade. The required belt cutter shall be mounted in a location accessible to the seated driver in an easily detachable manner.
- 2.9.b. Wheelchair lift-equipped buses shall have two belt cutters, one located at the front of the bus and one located at the rear of the bus.

## 2.10. Fire Extinguisher.

- 2.10.a. Each bus shall be equipped with at least one pressurized, dry chemical-type fire extinguisher of total metal construction, refillable, and securely mounted with a spring steel friction fit bracket. A pressure gauge shall be mounted on the extinguisher to be easily read without removing the extinguisher from its mounted position.
- 2.10.b. The fire extinguisher shall be of a type approved by the Underwriters Laboratories, Inc., with a total rating of not less than 2A-10-BC. The operating mechanism shall be sealed with a type of seal which will not interfere with use of the fire extinguisher.

## 2.11. First Aid Kit.

- 2.11.a. A bus shall have a removable moisture and dust proof first aid kit mounted in full view in an accessible place within the operator's compartment. This place shall be properly identified.
  - 2.11.b. The minimum requirement is a 35 unit kit with contents as follows:
    - 2.11.b.1. bandage compress, (sterile gauze pads) four inches five units.

2.11.b.2. bandage compress, (sterile gauze pads) two inches	six units.
2.11.b.3. adhesive absorbent bandage (adhesive tape) one inch	five units.
2.11.b.4. triangular bandage, 40 inches	four units.
2.11.b.5. bauze bandage, four inches	five units.
2.11.b.6. absorbent-gauze compress	six units.
2.11.b.7. wire splints	one unit.
2.11.b.8. non-latex gloves	one unit.
2.11.b.9. kindergarten scissors	one unit.
2.11.b.10. mouth-to-mouth airway (plastic breathing shield)	one unit.

2.11.c. The mounting bracket shall be able to sustain a 20 G-force load in any direction except upward.

## 2.12. Floor.

- 2.12.a. The floor of the bus shall be of prime commercial quality steel of at least 14-gauge or other material equivalent in strength to 14-gauge steel. The floor shall be covered with approximately 19/32 inch thickness plywood, at least five-ply, and shall be marine grade plywood, C-D Grade, as specified in the standard issued by the U. S. Department of Commerce and shall be attached to the metal floor with stainless steel fasteners. The floor shall be level from front-to-back and from side-to-side, except in wheel housing, toe board, and operator's seat platform areas.
- 2.12.b. All openings between the chassis and the passenger carrying compartment made due to alterations by the body manufacturer must be sealed.

# 2.13. Floor Covering.

- 2.13.a. The floor covering shall be of high-quality, heavy-duty elastomeric material with a rating of self-extinguishing (a burn rate of 0.1 mm or less) when tested in accordance with Federal Motor Vehicle Safety Standards (FMVSS) 302, paragraph S4.3 (b) meeting current NSTSP. The floor covering shall have a smooth back.
- 2.13.b. The floor covering shall be permanently bonded to the sub-floor and must not blister, crack, or grow with reasonable use and maintenance. Bonding or adhesive material shall be waterproof and shall be of type recommended by the manufacturer of floor covering material. All seams or joints in flooring shall be sealed with waterproof sealer.
- 2.13.c. The floor covering in the aisle area shall be ribbed, non-skid type. Aisle strips shall be attached with stainless steel fasteners. Minimum overall thickness shall be 0.187 3/16 inch.

- 2.13.d. The floor covering for under the seat area, top of wheel housing, operator's compartment, and toeboard shall be smooth non-skid type and shall have a minimum thickness overall of 0.125 1/8 inch. The covering shall be securely bonded to the contour of the wheel housing.
- 2.13.e. The cove molding shall be used along the side walls and rear corners. Metal or equivalent aisle joint strips shall be used to protect joints of flooring. However, painstaking care must be exercised to assure joints are properly fitted and sealed prior to fitting strips or molding to floor. Aisle strips shall be so shaped that the edges of same shall be drawn and held firmly to the flooring material. Welded seam one-piece construction is permissible.
- 2.13.f. Floor construction shall provide a properly sealed opening for access to the fuel gauge sending unit and/or in-tank fuel pump for all buses 35 passenger and above.
  - 2.13.g. The floor covering shall not be black in color. Exception: Molded wheel housing covers.
  - 2.14. Fuel Port Door.
    - 2.14.a. The body manufacturer shall furnish a fuel port door on all vehicles. Exception: Type A
- 2.14.b. All vehicles shall have a fuel door labeled with proper fuel type and the label shall be within six inches of the door.
  - 2.14.c. The fuel port door shall have a securement device.
  - 2.14.d. A Diesel Engine Fluid (DEF) door is required if applicable and must be labeled.
  - 2.15. Heaters and Air Conditioning.
    - 2.15.a. Heating System.
      - 2.15.a.1. The heater shall be hot water.
- 2.15.a.2. If only one heater is used, it shall be fresh-air or combination fresh-air and recirculation type.
  - 2.15.a.3. If more than one heater is used, additional heaters may be re-circulating air type.
- 2.15.a.3.A. A mid-body heater of 50K British Thermal Unit (BTU) for buses that carry 65 passengers and up.
  - 2.15.a.3.B. Each heater is to be independently controlled by a switch.
- 2.15.a.3.C. Each heater shall be attached to a separate circuit breaker or a field effect transistor (FET).
- 2.15.a.4. The heating system shall be capable of maintaining bus interior temperatures, as specified in test procedure SAE J2233.

- 2.15.a.5. All forced-air heaters installed by body manufacturers shall bear a name plate that indicates heater rating in accordance with School Bus Manufacturers Technical Council (SBMTC)-001, Standard Code for Testing and Rating Automotive Bus Hot Water Heating and Ventilating Equipment. The plate shall be affixed by the heater manufacturer and shall constitute certification that the heater performance is as shown on the plate.
- 2.15.a.6. All heater hoses shall be adequately supported to guard against excessive wear due to vibration. The hoses shall not dangle or rub against the chassis or any sharp edges and shall not interfere with or restrict the operation of any engine function. Heater hoses shall conform to SAE J20c, Coolant System Hoses. Heater lines on the interior of the bus shall be shielded to prevent the scalding of the driver or passengers.
- 2.15.a.7. Each hot water system installed by a body manufacturer shall include one shut-off valve in the pressure line and one shut-off valve in the return line, with both valves at the engine in an accessible location. Exception: Type A. The valves may be installed in another accessible location.
- 2.15.a.8. All heaters in the passenger compartment shall be equipped with a device installed in the hot water pressure line which regulates the water flow to all passenger heaters. The device shall be conveniently operated by the driver while seated. The driver and passenger heaters may operate independently of each other for maximum comfort.
- 2.15.a.9. Accessible bleeder valves for removing air from the heater shall be installed in an appropriate place in the return lines of body company-installed heater.
- 2.15.a.10. Access panels shall be provided to make heater motors, cores, and fans readily accessible for service. An exterior access panel to the driver's heater may be provided.
- 2.15.a.11. At least two auxiliary fans six inches in diameter shall be installed, suspended from above on the driver's side of the windshield, and can be adjusted for maximum effectiveness. The fan blade shall be covered with a protective cage. Each fan shall be controlled by a separate switch. Auxiliary fans are not to be considered as part of the primary defrosting and defogging system. Exception: Type A
  - 2.15.b. Passenger Compartment Air Conditioning (Optional).
- 2.15.b.1. The following specifications in this section are applicable to all types of school buses that may be equipped with air conditioning. This section is divided into three parts: Part One Performance Specifications, Part Two Test Conditions, and Part Three Other Requirements Applicable to All Buses.
  - 2.15.b.2. Performance Specifications.
    - 2.15.b.2.A. Standard Performance.
- 2.15.b.2.A.1. The installed air conditioning system should cool the interior of the bus from 100 degrees to 80 degrees Fahrenheit, measured at three points (minimum) located four feet above the floor on the longitudinal centerline of the bus.
  - 2.15.b.2.A.2. The three required points shall be: 1) three feet above the center point of the

horizontal driver seat surface, 2) at the longitudinal midpoint of the body, and 3) three feet forward of the rear emergency door, or for Type D rear-engine buses, three feet forward of the end of the aisle.

2.15.b.2.A.3. Note for the Type A Vehicles. Placement of the rear thermocouple should be centered in the bus over the rear axle. The independent temperature reading of each temperature probe inside the bus shall be within a range of three degrees Fahrenheit of the average temperature at the conclusion of the test.

## 2.15.b.2.B. High Performance.

- 2.15.b.2.B.1. The installed air conditioning system should cool the interior of the bus from 100 degrees to 70 degrees Fahrenheit, measured at three points (minimum) located four feet above the floor on the longitudinal centerline of the bus.
- 2.15.b.2.B.2. The three required points shall be: 1) three feet above the center point of the horizontal driver seat surface, 2) at the longitudinal midpoint of the body, and 3) three feet forward of the rear emergency door, or for Type D rear-engine buses, three feet forward of the end of the aisle. Note for the Type A vehicles. Placement of the rear thermocouple should be centered in the bus over the rear axle. The independent temperature reading of each temperature probe inside the bus shall be within a range of three degrees Fahrenheit of the average temperature at the conclusion of the test.

## 2.15.b.3. Test Conditions.

- 2.15.b.3.A. The test conditions under which the above performance standards must be achieved shall consist of:
- 2.15.b.3.A.1. placing the bus in a room (such as a paint booth) where ambient temperature can be maintained at 100 degrees Fahrenheit.
- 2.15.b.3.A.2. heat-soaking the bus at 100 degrees Fahrenheit at a point measured two feet horizontally from the top of the windows on both sides of the bus, with windows open for two hours.
- 2.15.b.3.A.3. closing windows, turning on the air conditioner with the engine running at 1250 RPM, and cooling the interior of the bus to 80 degrees Fahrenheit, (standard performance) or 70 degrees Fahrenheit (high performance), within 30 minutes while maintaining 100 degrees Fahrenheit outside temperature.
- 2.15.b.3.B. The manufacturer shall provide test results that show compliance with standard systems. If the bid specifies, the manufacturer shall provide facilities for the user or user's representative to confirm that a pilot model of each bus design meets the above performance requirements.

## 2.15.b.4. Other Requirements for Air Conditioning.

- 2.15.b.4.A. Evaporator cases, lines, and ducting (as equipped) shall be designed in such a manner that all condensation is effectively drained to the exterior of the bus below the floor level under all conditions of vehicle movement and without leakage on any interior portion of the bus.
  - 2.15.b.4.B. Evaporators and ducting systems shall be designed and installed to be free of

projections or sharp edges. Ductwork shall be installed so that exposed edges face the front of the bus and do not present sharp edges.

- 2.15.b.4.C. On school buses equipped with Type-2 seatbelts having anchorages above the windows, the ducting (if used) shall be placed at a height sufficient not to obstruct occupant securement anchorages. This clearance shall be provided along the entire length (except at evaporator locations) of the passenger area on both sides of the bus interior.
- 2.15.b.4.D. The body may be equipped with insulation, including sidewalls, roof, firewall, rear, inside body bows, and plywood or composite floor Insulation to reduce thermal transfer.
- 2.15.b.4.E. All glass (windshield, service and emergency doors, side and rear windows) may be equipped with maximum integral tinting allowed by federal, state, or ANSI standards for the respective locations, except that windows rear of the driver's compartment, if tinted, shall have at least 28 percent light transmission.
- 2.15.b.4.F. Electrical generating capacity shall be provided to accommodate the additional electrical demands imposed by the air conditioning system.
  - 2.15.b.4.G. Roofs may be painted white to aid in heat dissipation.
- 2.15.b.4.H. Air intake for any evaporator assembly(ies), except for front evaporator of Type A-1, shall be equipped with replaceable air filter(s) accessible without disassembly of evaporator case.
- 2.15.b.4.l. For all buses (except Type D rear engine transit) equipped with a rear evaporator assembly, evaporator shall not encroach upon head impact zone, but may occupy an area of less than 26.5 inches from the rear wall and 14 inches from the ceiling.
- 2.15.b.4.J. For Type D rear engine transit buses equipped with a rear evaporator over the davenport, the evaporator assembly may not interfere with rear exit window and may not extend above the rear seating row.

# 2.16. Identification.

- 2.16.a. The body shall bear words "SCHOOL BUS" in black letters at least eight inches high on both front and rear of body.
  - 2.16.a.1. Lettering shall be placed as high as possible without impairment of its visibility.
  - 2.16.a.2. Lettering shall conform to Series B of Standard Alphabet for Highway Signs.
  - 2.16.a.3. Decals or vinyl lettering are permissible.
- 2.16.a.4. SCHOOL BUS signs shall be marked with reflective National School Bus Glossy Yellow comprising background for lettering of the front and/or rear SCHOOL BUS signs.
- 2.16.b. Every bus shall be lettered ".....COUNTY SCHOOLS" on both sides of the bus, and numbered on both sides and rear.

- 2.16.b.1. Numbers on both sides shall be near front, in line with the lettering.
- 2.16.b.2. Lettering and numbering on sides of the bus shall be at least six inches high.
- 2.16.b.3. Decals or vinyl lettering are permissible.
- 2.16.c. The number of the bus shall be six inches in height, in white or yellow, displayed on either the front bumper or the crossing arm.

## 2.17. Insulation.

- 2.17.a. The ceiling, walls, and bulkhead or bow cavities shall be fully insulated with proper material applied inside of outside panels by spray to deaden the sound.
- 2.17.b. The ceiling and walls shall be fully insulated with a thermal insulation that is fire resistant, Underwriters Laboratories (UL)-approved, and with a minimum R-value of 5.5. Insulation shall be installed so as to prevent sagging.
  - 2.17.c. Additional interior noise abatement and acoustical package are permissible.

## 2.18. Interior.

- 2.18.a. Interior of the bus shall be free of all unnecessary projections likely to cause injury. This requires inner lining on ceilings and walls. If the ceiling is constructed to contain lapped joints, the forward panel shall be lapped by the rear panel, and the exposed edges shall be beaded, hemmed, flanged, or otherwise treated to minimize sharp edges.
- 2.18.b. The cowl shall not be modified, or accessories installed, to interfere with operator's visibility of gauges on the instrument panel.
  - 2.18.c. The flammability of interior materials shall meet FMVSS 302.
  - 2.18.d. The interior color of seats, panels, head bumpers, and floor covering shall not be black.
- 2.18.e. Every school bus shall be constructed so that the noise level, taken at the ear of the occupant nearest to the primary vehicle noise source (engine), shall not exceed 85 dB when tested according to the procedure found in the Noise Test Procedure National Minimum Requirements.
  - 2.18.f. Full length acoustical ceiling shall be provided.
  - 2.19. Lamps and Signals.
- 2.19.a. All lamps, including installation, shall conform to current standards and recommendations of SAE, West Virginia Motor Vehicle Law and FMVSS 108.
  - 2.19.b. Head Lamps.

- 2.19.b.1. Head and tail lamps shall be combined on a single circuit, served by a separate circuit breaker or field effect transistors (FET). There shall be no other electrical load added to the head lamp circuit.
  - 2.19.c. Clearance and Side-Marker Lamps.
- 2.19.c.1. Clearance, side-marker, and identification lamps shall be protected or flush mounted and combined in a circuit controlled by the same switch.
  - 2.19.d. Tail and Stop (Brake) Lamps shall meet NSTSP.
  - 2.19.e. Back-up lamps shall meet NSTSP.
    - 2.19.e.1. Two seven inch lamps or equivalent are required.
- 2.19.e.2. Additional lighting is required to illuminate the area around the rear tires automatically when the back-up lights have been activated.
- 2.19.e.3. The system shall be a white, light-emitting diode (LED), light-wired to the back-up light circuit.
- 2.19.e.4. The system shall illuminate a rectangular area on both sides of the vehicle beginning 29 inches aft of the center point of the rear axle and extending outward from the vehicle sides 24 inches and rearward 30 inches.
- 2.19.e.5. There shall be no point within this illuminated area having illumination of less than three-foot candles as tested on a bare concrete surface.
- 2.19.e.6. Back-up lights shall illuminate the ground at the rear of the bus when the rear exit door is opened.
  - 2.19.f. Interior Lamps.
- 2.19.f.1. Interior lamps shall include two rows of dome lamps installed on two circuits so that lamps in the front half and lamps in the rear half of the bus are on separate circuits.
- 2.19.f.2. A stepwell light which adequately illuminates the stepwell shall be provided. It shall be connected in the clearance lamp circuit and activated when the service door is opened. A separate light shall illuminate the outside area at the stepwell.
  - 2.19.g. School Bus Alternately Flashing Signal Lamps.
- 2.19.g.1. The bus shall be equipped with two red lamps at the rear of the vehicle and two red lamps at the front of the vehicle. In addition to the four red lamps, four amber lamps shall be installed so that one amber lamp is located near each red signal lamp at the same level but closer to the vertical centerline of the bus. The system of red and amber signal lamps shall be wired so that amber lamps are energized manually. The red lamps are automatically energized, and the amber lamps are automatically deenergized when the stop sign and front bumper crossing arm are extended or when the bus entrance door is

- opened. An amber pilot lamp and a red pilot lamp shall be installed adjacent to the driver controls for the flashing signal lamp to indicate to the driver which lamp system is activated.
  - 2.19.g.2. Red lamps shall flash any time the stop sign and crossing arm are extended.
- 2.19.g.3. All flashers for alternately flashing red and amber signal lamps shall be enclosed in the body of a readily accessible location.
- 2.19.g.3.A. Each school bus shall be equipped with a system consisting of four red signal lamps designed to conform to SAE Standard J887 and four amber signal lamps designed to that standard except for color. This system, stop arm, and crossing arm shall be wired through a master switch but not through the vehicle ignition switch.
  - 2.19.g.3.B. Shields over lamps, painted black are required.
- 2.19.g.3.C. The system shall be wired so that the amber signal lamps are activated only by hand operation, and, if activated, are automatically deactivated, and red signal lamps are automatically activated when the bus entrance door is opened.
- 2.19.g.3.D. There shall be an indicator lamp which shall illuminate when the respective amber or red systems are actuated. The pilot lamp shall either go out or flash at an altered rate in the event the system is not functioning normally.
  - 2.19.g.3.E. The signal lamp system shall operate as follows:
- 2.19.g.3.E.1. With the master switch on and the entrance door closed, the operator shall depress the hand switch. The amber pilot lamp and amber signals shall illuminate.
- 2.19.g.3.E.2. The operator shall open the entrance door. The amber pilot lamp and amber signal lamps shall turn off, and the red pilot lamp and red signal lamps shall illuminate. The stop sign and crossing arm, if air or electrically powered, shall automatically extend.
- 2.19.g.3.E.3. The operator shall close the entrance door. The red pilot lamp and signal lamps shall turn off, and the stop sign and crossing arm, if air or electrically powered, shall retract immediately.
- 2.19.g.3.E.4. The operator shall open entrance door without depressing the hand switch. The red pilot lamp and red signal lamps shall illuminate. The stop sign, if air or electrically powered, shall automatically extend.
- 2.19.g.3.E.5. With the master switch off, the depressing hand switch shall not actuate the amber signal system, nor shall opening the entrance door actuate the red signal system, the stop sign, or crossing arm.
- 2.19.g.3.E.6. The vehicle's red loading lights shall have the ability to be activated with the key in the on or off position. If the system utilizes a single switch to activate the red lights, it shall be protected against possible accidental activation while the bus is in motion.

- 2.19.g.3.E.7. All loading light controls shall be to the left of the operator. Exception: Type A.
  - 2.19.g.4. Installation Requirements.
- 2.19.g.4.A. Each flashing signal lamp shall be mounted with its axis substantially parallel to the longitudinal axis of vehicle.
- 2.19.g.4.B. The front and rear alternately flashing signal lamps shall be spaced as far apart laterally as practicable.
- 2.19.g.4.C. The alternately flashing signal lamps shall be mounted at the front above the windshield and at the rear so that the lower edge of the lens is not lower than the top line of the side window.
- 2.19.g.4.D. The vertical and lateral vision of the front and rear alternately flashing warning lamps shall not be obstructed by any part of the body or lamp house insofar as standard bus body construction shall permit.
- 2.19.g.4.E. The area around each lamp shall have a readily visible black border for contrast purposes.
- 2.19.g.4.F A separate fuse, circuit breaker, or FET adequate to prevent damage to the system in the event of a dead short shall be provided between the power source and the master switch.
  - 2.19.h. Roof Mounted Strobe Lamp.
    - 2.19.h.1. A strobe lamp, white in color, shall be mounted on the roof of the school bus.
- 2.19.h.2. The lamp shall be a maximum of five inches in height, located on the center line of the roof and behind the rear roof hatch.
- 2.19.h.3. The strobe lamp shall be a double flashing Class 2, with a minimum of ten joules when using the gaseous tub lamp.
  - 2.19.h.4. An LED strobe light is permissible as a Class 1 double flashing light.
  - 2.19.i. Turn Signal Lamps.
    - 2.19.i.1. Turn signal lamps shall meet the NSTSP standards.
- 2.19.i.2. Type A, C, and D vehicles shall have a protected lamp mounted on the right side behind the service door and on the left side behind the stop arm signal, wired into the turn signal circuit.
  - 2.19.j. Emergency Warning Device.
- 2.19.j.1. Each school bus shall be supplied with a minimum of at least three reflective triangle road warning devices in a container supplied but not mounted by the body manufacturer.

- 2.19.k. Each school bus must have an exterior skirt-mounted landing lamp at the entrance door.
- 2.20. Mirrors.
  - 2.20.a. Interior Mirror.
- 2.20.a.1. The interior mirror shall be either clear view laminated glass or clear view glass bonded to a backing which retains the glass in the event of breakage.
- 2.20.a.2. The mirror shall be a minimum of six inches x 30 inches. Exception: Type A vehicles may be six inches x 16 inches.
  - 2.20.b. Exterior Mirrors.
    - 2.20.b.1. All exterior mirrors are to be heated and must conform to FMVSS 111.
    - 2.20.b.2. Remote controlled external rear view mirrors are required.
  - 2.21. Mounting.
- 2.21.a. The body to chassis mounting shall meet the NSTSP standards and provide adequate body to chassis insulation with permanently installed insulators.
  - 2.22. Mud Flaps.
- 2.22.a. Mud flaps or guards are required and shall be provided by the body manufacturer for both front and rear wheels. They shall be constructed of heavy-duty multi-ply mud flap material.
- 2.22.b. Front mud flaps or guards shall be of adequate size to protect body areas vulnerable to road debris from wheels and mounted to be free of wheel movement at all times.
- 2.22.c. Rear mud flaps or guards shall be comparable in size to width of the rear wheel housing and shall reach within approximately nine inches of the ground when the bus is empty. They shall be mounted at a distance from the wheels to permit free access to spring hangers for lubrication and maintenance and to prevent being pulled off while the vehicle is in reverse motion and damage by tire chains.
  - 2.23. Overall Length.
    - 2.23.a. The overall length of the bus shall not exceed 45 feet.
  - 2.24. Overall Width.
- 2.24.a. The overall width of the bus shall not exceed 102 inches, excluding authorized safety equipment.
  - 2.25. Rub Rails.

- 2.25.a. There shall be at least three black rub rails located as follows:
  - 2.25.a.1. one at seat level,
  - 2.25.a.2. one at floor level, and
  - 2.25.a.3. one at bottom of body skirt. Exception: Type A vehicles.
- 2.25.b. Rub rails shall extend from the rear of the entrance door completely around the bus to the point of curvature near the outside cowl on the left side. At least one rub rail will extend around the rear of the bus. Exception: Type D vehicles with rear engine.
- 2.25.c. Rub rails shall be one piece except where broken by the emergency door, wheel housings, battery box, access panels, the corner of bus, etc. All ends shall be capped.
- 2.25.d. Rub rails shall be securely attached at least twice to each body post and upright structural member within their length.
- 2.25.e. Rub rails shall be four inches or more in width, of 16-gauge steel or suitable material of equivalent strength, and constructed in corrugated or ribbed fashion.
- 2.25.f. Rub rails shall be applied outside the body or outside body posts. Pressed-in or snap-on rails do not satisfy this requirement.
  - 2.26. Seat Belt for Operator.
    - 2.26.a. A Type 2 lap belt/shoulder belt shall be provided for the operator.
- 2.26.b. On buses where the driver's seat and upper anchorage for the shoulder belt are both attached to the body structure, a driver's seat with an integrated Type 2 lap/shoulder belt may be substituted. Lower anchors (tethers) shall be adjustable.
- 2.26.c. On buses where the driver's seat and upper anchorage for the shoulder belt are separately attached to both body and chassis structures (i.e., one attached to the chassis and the other attached to the body), a driver's seat with an integrated Type 2 lap/shoulder belt should be used.
- 2.26.d. The assembly shall be equipped with an emergency locking retractor for the continuous belt system.
- 2.26.e. On all buses except Type A that are equipped with a standard chassis manufacturer's driver's seat, the lap portion of the belt system shall be guided or anchored to prevent the driver from sliding sideways under the belt system.
- 2.26.f. The lap/shoulder belt shall be designed to allow for easy adjustment to fit properly and to effectively protect drivers varying in size from 5<sup>th</sup> percentile adult female to 95<sup>th</sup> percentile adult male.
  - 2.26.g. Lap belt/shoulder belt shall be orange in color.

- 2.27. Seats.
  - 2.27.a. All seats shall have minimum depth of 15 inches.
- 2.27.b. Any two seats of the first two rows of seats on all buses shall be simultaneous seat-belt ready seats, equipped with Lower Anchors and Tethers for Children (LATCH) systems for Child Safety Restraint Systems (CSRS).
- 2.27.c. For securing child infant seats, the seats must meet FMVSS 210, FMVSS 222, and FMVSS 225 requirements.
- 2.27.d. All such 39 inch and larger passenger seats must be equipped with two sets of anchorage points per bench seat.
- 2.27.e. All such passenger seats with a seat width of fewer than 36 inches must be equipped with one set of anchorage points per bench seat.
  - 2.27.f. All seats and crash barriers must comply with all applicable FMVSS standards.
  - 2.27.g. No bus shall be equipped with jump seats or portable seats.
- 2.27.h. The forward-most pupil seat on the right side of bus shall be located not to interfere with the operator's vision, and not farther forward than the crash barrier behind the operator or rear of the operator's seat when adjusted to its rear-most position.
  - 2.27.i. A modesty panel will be provided under the right and left front crash barrier.
  - 2.27.j. All restraining barriers and passenger seats shall meet the criteria contained in FMVSS 302.
- 2.27.k. The operator's seat shall be of the high-back type air ride with a minimum seat back adjustment of 15 degrees and with a head restraint to accommodate a 95<sup>th</sup> percentile adult male as defined in FMVSS 208. It shall have an adjustment clip on the integrated three-point belt that will adjust to any size driver. The seat shall have a lumbar support. Exception: Type A
- 2.27.l. Type A vehicle bodies shall be equipped with restraining barriers conforming to FMVSS 222 School Bus Passenger Seating Crash Protection.
- 2.27.m. The last seat on the left shall not exceed 30 inches in width so as not to block the rear emergency exit door. Exception: Rear-engine transit school bus.
  - 2.28. Steps.
- 2.28.a. The first step at the entrance door shall be not fewer than ten inches and not more than 14 inches from the ground when measured from the top surface of the step to the ground, based on standard chassis specifications, except that on Type D vehicles, the first step at the entrance door shall be 12 inches to 16 inches from the ground.
  - 2.28.a.1. An auxiliary step may be provided to compensate for the increase in

ground-to-first-step clearance.

- 2.28.a.2. The auxiliary step is not required to be enclosed.
- 2.28.b. Step risers shall not exceed a height of ten inches. Exception: When plywood is used on a steel floor or step, the riser height may be increased by the thickness of the plywood.
  - 2.28.c. Steps shall be enclosed to prevent accumulation of ice and snow.
  - 2.28.d. Steps shall not protrude beyond the side body line.
  - 2.29. Step Treads.
- 2.29.a. All steps, including the floor line platform area, shall be covered with an elastomer floor covering having a minimum overall thickness of 0.187 inch.
- 2.29.b. The step covering shall be permanently bonded to a durable backing material that is resistant to corrosion.
- 2.29.c. Steps, including the floor line platform area, shall have a 1½ inch nosing that contrasts in color by at least 70 percent measured in accordance with the contrasting color specification in 36 CFR, Part 1192, ADA, Accessibility Guidelines for Transportation Vehicles.
  - 2.29.d. Step treads shall have the following characteristics.
- 2.29.d.1. Abrasion resistance: Step tread material weight loss shall not exceed 0.40 percent, as tested under ASTM D-4060, Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser, (CS-17 Wheel, 1000 gram, 1000 cycle).
- 2.29.d.2. Weathering resistance: Step treads shall not break, crack, or check after ozone exposure (7 days at 50 phm at 40 degrees C) and Weatherometer exposure (ASTM D-750, Standard Test Method for Rubber Deterioration in Carbon-Arc Weathering Apparatus, seven days).
- 2.29.d.3. Flame resistance: Step treads shall have a calculated burn rate of .01 or less using the test methods, procedures, and formulas listed in FMVSS No. 302, Flammability of Interior Materials.
- 2.29.d.4. A spray-on application type material may be used in lieu of item A that meets the requirements of items B through D. The material shall be applied not only to the interior surfaces of the service door step treads but also to the exterior, if not covered by undercoating.
  - 2.30. Stirrup Steps.
- 2.30.a. If the windshield and lamps are not easily accessible from the ground, there may be at least one folding stirrup step or recessed foothold installed on each side of the front of the body for ease of access when cleaning.
  - 2.30.b. There shall be a grab handle installed in conjunction with the step.

- 2.30.c. Steps are permitted in or on the front bumper in lieu of the stirrup steps if the windshield and lamps are easily accessible for cleaning from that position.
  - 2.31. Stop Sign and Crossing Control Arm.
- 2.31.a. There shall be a stop sign installed on the left outside of the body which shall be equipped with a wind guard.
- 2.31.a.1. The sign shall be of an octagonal shape with white letters and border, a red background, and be of reflective material.
- 2.31.a.2. Two alternately flashing, high intensity, red strobe lamps (LED are permissible) visible from both sides of the sign shall be provided.
  - 2.31.a.3. The stop sign shall be air operated. Exception: Type A
- 2.31.a.4. The stop sign shall be capable of instantly reversing directions at any time during its cycle and immediately returning to the open or closed position in response to the operator's command through the operation of the door.
  - 2.31.b. A solid-piece crossing control arm mounted to the right front bumper of the bus is required.
    - 2.31.b.1. The device shall be air-powered. Exception: Type A
- 2.31.b.2. The crossing control arm shall be wired in conjunction with the stop sign and the alternately flashing signal lamp.
- 2.31.b.3. The crossing arm shall be equipped with a device to hold the arm to the bumper when the arm is not activated.
  - 2.32. Storage Compartment.
- 2.32.a. Two compartments of adequate strength and capacity for storage of tire chains and other equipment shall be provided.
  - 2.32.a.1. Such storage compartments shall be located outside the passenger compartment.
- 2.32.a.2. The dimensions of these compartments shall be a minimum of 25 inches long, 16 inches wide, and 12 inches high. Exception: Type A vehicles may be manufacturer's standard size.
  - 2.32.a.3. Vehicles with air conditioning shall have at least one compartment.
  - 2.32.a.4. Buses with larger luggage compartments are not required to meet this standard.
  - 2.32.b. A door with locks keyed alike as well as a proper latch shall be provided.
- 2.32.b.1. Such compartments shall be constructed with a provision for the drainage of water resulting from snow and ice on tire chains. Exception: Lift equipped bus compartment may be on the left or

right.

#### 2.33. Sun Shield.

- 2.33.a. An interior adjustable, transparent, and tinted sun shield at a minimum of six inches x 30 inches shall be provided.
- 2.33.b. The sun shield must be capable of being turned to an angle of 180 degrees when not in use. Exception: Type A vehicles under 35 passengers, manufacturer's standard.
  - 2.34. Undercoating/Metal Treatment.
- 2.34.a. All metal used in construction of the bus body shall be zinc-coated, aluminum-coated, or treated by an equivalent process before the bus is constructed. Excluded are items such as door handles, grab handles, interior decorative parts, and other interior plated parts.
- 2.34.b. All metal parts that will be painted shall be, in addition to other requirements, chemically cleaned, etched, zinc phosphate-coated, and zinc chromate or epoxy-primed or conditioned by an equivalent process.
- 2.34.c. In providing for these requirements, particular attention shall be given lapped surfaces, welded connections of structural members, cut edges, punched or drilled hole areas in sheet metal, closed or box sections, unvented or undrained areas, and surfaces subjected to abrasion during vehicle operation.
- 2.34.d. As evidence that the above requirements have been met, samples of materials and sections used in construction of the bus body, when subjected to 1000-hour salt spray test as provided for in the latest revision of ASTM designation, B-117 Standard Method of Salt Spray (Fog) Testing, shall not lose more than ten percent of material by weight.
- 2.34.e. The entire underside of the bus body, including floor sections, cross member, chain box, chassis, and below floor line side panels, shall be coated with rust-proofing material for which the material manufacturer has issued notarized certification of compliance to the bus body builder that the material meets or exceeds all performance requirements of SAE J1959, September 2003 edition of the standard.
- 2.34.f. Undercoating material shall be applied with suitable airless or conventional spray equipment to recommended film thickness and shall show no evidence of voids in cured film.
  - 2.34.g. The undercoating material shall not cover any exhaust or driveline components.

#### 2.35. Ventilation.

- 2.35.a. The body shall be equipped with a suitable, controlled ventilating system of sufficient capacity to maintain proper quantity of air under operating conditions without the opening of windows except in extremely warm weather.
- 2.35.b. A static-type, non-closable exhaust ventilation shall be installed in the low-pressure area of the roof.

- 2.36. Video Equipment.
  - 2.36.a. Video equipment shall be installed.
- 2.36.b. Installation shall be either by the dealer/manufacturer or the county and both equipment and installation shall be subject to the following guidelines:
  - 2.36.b.1. the equipment must be installed in an area at the front of the bus.
- 2.36.b.2. the equipment is outside the federal head impact zone, FMVSS 222 School Bus Passenger Seating and Crash Protection.
  - 2.36.b.3. the equipment is located in an area not likely to cause student injury.
- 2.36.b.4. the equipment shall be a minimum of a six-channel system. Camera head locations, if installed by the manufacturer, shall be chosen by the county. The equipment brand shall be chosen by the county. Exception: Type A shall be a minimum four-channel system and Type D shall be a minimum eight-channel system.
- 2.36.b.5. a video monitoring systems for passing stopped school buses must include the minimum system requirements established by W. Va. Code §17C-12-8. The forward facing camera shall be mounted inside the bulkhead and,
- 2.36.b.5.A. must produce live digital and recorded video of vehicles being operated in violation of W. Va. Code.
  - 2.36.b.5.B. must produce a recorded image of the license plate.
- 2.36.b.5.C. must record the activation status of at least one warning device (the red traffic warning lights and the side stop sign) mounted on the school bus and the time, date, and location of the vehicle when the image is recorded.
  - 2.36.c. Additional guidelines for video equipment must be met.
    - 2.36.c.1. The lettering on the side of the bus must not be obscured.
    - 2.36.c.2. The equipment must not impede or block any emergency exits.
- 2.36.c.3. All wiring must be mounted inside the side of the bus and cannot be mounted inside the driver/passenger area.
  - 2.36.c.4. All roof and side mounting locations must be sealed to ensure no leaks.
  - 2.36.c.5. The system wiring must be separate from any emergency lights, alarms, etc.
  - 2.36.c.6. All exterior camera housings should be painted national school bus yellow.
  - 2.36.c.7. The system must operate automatically and not require the driver to activate it.

- 2.36.c.8. Vendor/manufacturer must provide documentation to the county that the system is properly mounted and camera(s) are capturing clear video identifying a moving vehicle.
- 2.36.c.9. Installation by vendor/manufacturer must include warranty on the complete system for a minimum of 12 months after delivery of the bus.
- 2.36.c.10. Exterior cameras must be designed to eliminate movement due to vandalism or rough roads.
  - 2.37. Wheel Housings.
    - 2.37.a. Wheel housings shall be of full open type.
    - 2.37.b. Wheel house openings shall allow for easy tire removal and service.
- 2.37.c. Wheel housings shall be designed to support seat and passenger loads and shall be attached to floor sheets in such a manner to prevent any dust or water from entering the body.
  - 2.37.d. The inside height of wheel housings above the floor line shall not exceed 12 inches.
- 2.37.e. Wheel housing shall provide clearance for installation and use of tire chains on single or dual power-driving wheels.
- 2.37.f. Rubber fenders that adequately protect the sides of the body from tire spray shall be provided. Exception: Type A may be a non-metallic material.
  - 2.38. Windshield and Windows.
- 2.38.a. All glass in the windshield, windows, and doors shall be of approved safety glass (current Safety Code for Safety Glazing Motor Vehicles Operating on Land Highways Z-26.1) so mounted that the permanent mark is visible and of sufficient quality to prevent distortion of view in any direction. All glazing materials shall comply with FMVSS-205 and FMVSS-219.
- 2.38.b. The windshield shall have a horizontal gradient band starting slightly above operator's line of vision and gradually decreasing in lamp transmission to 20 percent or less at the top of the windshield. Exception: Types A and D vehicles may use tinted windshield if a gradient band is not available.
  - 2.38.c. All buses are required to be equipped with split-sash windows.
- 2.38.d. Glass in all side and rear windows shall be of AS-3 grade or better, as specified by American Standards Association, Code Z-26.1.
- 2.38.e. Other than emergency exits designated to comply with FMVSS No. 217, Bus Emergency Exits and Window Retention and Release, each side window shall provide an unobstructed opening of at least nine inches high (but not more than 13 inches high) and at least 22 inches wide, obtained by lowering the window. One window on each side of the bus may be less than 22 inches wide.

- 2.38.f. The latch shall be designed to latch positively and securely, with an ease of release that would enable pupils to open the window in an emergency.
- 2.38.g. A window drip rail which does not interfere with the size of the window opening shall be furnished.
- 2.38.h. The operator's window shall be of a sliding type. Double glazing is strongly recommended. Exception: Type A vehicles, manufacturer's standard.
  - 2.38.i. Windshields shall comply with federal, state, and local regulations.
  - 2.38.j. Emergency windows shall be vertically hinged.
  - 2.39. Windshield Washers.
- 2.39.a. A windshield washer reservoir shall be furnished and shall be at least a three-quart capacity unless space restrictions limit size of the container.
  - 2.39.b. A solvent shall be directed onto the windshield through jets in the wiper arm.
  - 2.40. Windshield Wipers.
- 2.40.a. The bus shall be equipped with intermittent-speed wipers. Windshield wipers shall be powered by motor(s) on all vehicles and must meet SAE standard J198.
  - 2.41. Wiring.
    - 2.41.a. All wiring and lamps shall conform to current SAE standards and FMVSS 108.
- 2.41.b. The chassis to body current shall be controlled through a continuous duty or ECS solenoid of at least 105 ampere capacity.
  - 2.41.c. All wiring shall have an ample capacity of exceeding a design load of at least 25 percent.
- 2.41.d. The body wiring diagram, sized to be easily read, shall be furnished with each bus body or affixed to an area convenient to the electrical accessory control panel.
  - 2.41.e. Each wire passing through metal openings shall be protected by a grommet.
- 2.41.f. Wires not enclosed within the body shall be fastened securely at intervals of not more than 18 inches. All joints shall be soldered or joined by equally effective connectors which shall be water and corrosion resistant.
  - 2.41.g. Circuits.
    - 2.41.g.1. Wiring shall be arranged into at least the following circuits:
      - 2.41.g.1.A. head, tail, stop (brake), and instrument panel lamp.

- 2.41.g.1.B. clearance, stepwell, and body control panel. The stepwell lamp shall be activated when the service door handle is in the unlatched position. Control panel lamps may be on a separate rheostat from the instrument panel lamps.
  - 2.41.g.1.C. dome lamps.
  - 2.41.g.1.D. starter motor.
- 2.41.g.1.E. ignition, emergency door signal, and continuous duty solenoid or an electronic control system (ECS).
  - 2.41.g.1.F. turn signal lamps.
  - 2.41.g.1.G. alternately flashing red signal lamps.
  - 2.41.g.1.H. horns.
  - 2.41.g.1.l. heater #1.
  - 2.41.g.1.J. heater #2.
  - 2.41.g.1.K. heater #3.
  - 2.41.g.1.L. electric wipers.
  - 2.41.g.1.M. strobe lamp.
  - 2.41.g.1.N. crossing arm.
- 2.41.g.2. Any of the above combination circuits may be subdivided into additional independent circuits.
- 2.41.g.3. Heaters and defrosters shall require at least one additional independent circuit for each heater.
- 2.41.g.4. Whenever possible, all other electrical functions, such as electric-type windshield wipers, shall be provided with independent and properly protected circuits.
- 2.41.g.5. Each body circuit shall be color coded and a diagram of the circuits shall be attached to the body in a readily accessible location.
- 2.41.g.6. All accessories, excluding lamps, such as heaters, defrosters, etc., shall be wired to a continuous heavy-duty solenoid or ECS (minimum 105 ampere) activated or energized through the ignition switch and can be tested through the accessory side of the ignition switch.
- 2.41.h. A separate circuit breaker or FET shall be provided for each circuit except starter, motor, and ignition circuits.

- 2.41.i. There shall be a manual noise suppression switch installed in the control panel. The switch shall be labeled and alternately colored. This switch shall be an on/off type, not a momentary type, that deactivates body and chassis equipment that produces noise, including, at least, the AM/FM radio, heaters, air conditioners, fans, and defrosters. This switch shall not de-activate safety systems, such as windshield wipers or lighting systems.
  - 2.41.j. Buses may be equipped with a 12-volt power port in the driver's area.

**NOTE:** All available warranty information must be provided to the purchaser and to the State Director as part of the bid package or upon receipt of the bus.

## 3. Training Requirements.

- 3.1. The successful bidder will be required to provide training for county school bus mechanics, supervisors, and/or operators when requested by the State Director.
- 3.2. Such training, if required, will be specified in invitations to bid and will indicate the type, extent, and location of classes to be conducted.

## 4. Special Transportation Vehicle - Specially Equipped School Bus or Multipurpose Passenger Vehicle (MPV).

Equipping buses to accommodate students with disabilities is dependent upon the needs of the passengers. While one bus may be fitted with a lift, another may have belts installed to secure child seats. Buses so equipped are not to be considered a separate class of school bus, but simply a regular school bus that is equipped for special accommodations.

The specifications in this section are intended to supplement specifications in the Body and Chassis section. In general, specially equipped buses shall meet all the requirements of the preceding sections, plus those listed in this section. It is recognized that the field of special transportation is characterized by varied needs for individual cases and by rapidly emerging technologies for meeting individual student needs. A flexible, "common sense" approach to the adoption and enforcement of specifications for these vehicles, therefore, is prudent.

#### 4.1. Definition.

4.1.a. Specially equipped school bus. Any school bus that is designed, equipped, and/or modified to accommodate students with special transportation needs.

## 4.2. General Requirements.

- 4.2.a. Specially equipped school buses shall comply with the National School Transportation Specifications & Procedures, the West Virginia Minimum Requirements for Design and Equipment of School Buses, and with the FMVSS applicable to their GVWR category.
- 4.2.b. Any school bus to be used for the transportation of children who utilize a wheelchair or other mobile positioning device, or who require life-support equipment that prohibits use of the regular service

entrance, shall be equipped with a power lift, unless a ramp is needed for unusual circumstances related to passenger needs.

- 4.2.c. Bodies may, at the option of the manufacturer, incorporate a section approximately 35 inches or nine inches in addition to the standard 28 inches section if necessary to provide maximum utilization of space for seats and wheelchairs. Proper bracing shall be added as specified in the body standards.
- 4.2.d. A lift shall be located on the right side of the body, in no way attached to the exterior sides of the bus but confined within the perimeter of the school bus body when not extended. A rear emergency door lift may be installed only with written permission from the State Director.
- 4.2.e. A vehicle equipped with a power lift must contain adequate space and proper restraining devices for a minimum of three wheelchair-bound passengers.
- 4.2.f. Each securement system location shall have a minimum clear floor area of 30 inches x 52 inches. Additional floor area may be required for some applications. Consultation between the user and the manufacturer is recommended to ensure adequate area is provided in the event more securement locations are needed.

#### 4.3. Aisle.

- 4.3.a. The aisle leading to the emergency door and lift area from the wheelchair area shall be a minimum of 30 inches.
  - 4.3.b. All wheelchair positions will be afforded the same available access.
  - 4.4. Fastening Devices.
    - 4.4.a. Wheelchair Restraints.
- 4.4.a.1. All mobile seating must be in a forward-facing direction secured with a four point tiedown system with two tie-downs at the rear and two tie-downs at the front of the device.
- 4.4.a.2. The wheelchair securement system including all hardware (attachment bolts, track, etc.) must meet minimum impact forces of a 20 G, 30 MPH deceleration to simulate a frontal impact on the transport vehicle per SAE J2249, Wheelchair Tie-downs and Occupant Restraint Systems for Use in Motor Vehicles.
- 4.4.a.3. All attachments or coupling systems which are designed to be connected and disconnected frequently must be operable by an adult person without the use of tools or other mechanical assistance.
- 4.4.a.4. All hardware and components of the securement system must be free of sharp or jagged areas and be made of corrosion resistant material or treated to resist corrosion.
- 4.4.a.5. All tie-downs used in the securement system for a mobile seating device must meet manufacturers' specifications and be of the automatic retractable type.

- 4.4.a.6. All tie-downs used in the securement system for a mobile seating device must be capable of adjustment in useful length of from 18 inches minimum to 34 inches maximum to provide sufficient flexibility to fit a majority of possible applications.
- 4.4.a.7. All tie-downs used in mobile seating devices must be manufactured using synthetic fiber woven webbing capable of being cut to release the mobile seating device in case of an emergency condition which would preclude using the normal release function of the tie-downs.
- 4.4.a.8. All securement straps for mobile seating devices must be marked indicating that they meet the requirements of SAE J2249.
- 4.4.a.9. A floor anchorage system shall be installed that maintains the seating versatility of the school bus with a minimum of three wheelchair positions.

#### 4.4.b. Occupant Restraints.

- 4.4.b.1. An occupant restraint must be included as part of each securement system. The occupant securement must consist of a retractable pelvic restraint and upper torso restraint.
- 4.4.b.2. The occupant restraint system including all hardware (attachment bolts, track, etc.) shall have been successfully tested in combination with a mobile seating device securement system to meet minimum impact forces of 20 G., 30 MPH deceleration to simulate a frontal impact on the transport vehicle per SAE J2249.
- 4.4.b.3. All attachment or coupling systems designed to be connected and disconnected frequently must be operable by an adult without the use of tools or other mechanical assistance.
- 4.4.b.4. The mobile seating device restraint should be retractable and independent of the occupant restraint and designed so that the weight of the wheelchair is not absorbed by the occupant.
- 4.4.b.5. Adjustment devices, quick-release buckles, and webbing, used in the construction of the occupant restraint system must meet requirements of FMVSS 209 and 222.
- 4.4.b.6. The pelvic restraint must be easily adjusted to fit a range of occupant sizes and contain a quick-release buckle. The upper torso restraint must be adjustable to fit a range of occupant sizes and be easily attached and disengaged from the pelvic restraint.
- 4.4.c. The manufacturer of the restraint systems must supply detailed instructions regarding the installation and use of the system, including mounting of attachment hardware or track, suggested angles for attaching tie-downs, and proper placement and positioning of the occupant restraint.
- 4.4.d. Padding or elimination of projections of structure or other similar elements must be considered in areas adjacent to the securement area of the mobile seating device.

## 4.4.e. Restraining Devices.

4.4.e.1. Seat frames shall be equipped with attachments or devices to which belts, restraining harnesses, or other devices may be attached.

- 4.4.e.2. Attachment framework or anchorage devices, if installed, shall conform to FMVSS 210.
- 4.5. Fire Blanket and Evacuation Aid.
- 4.5.a. Fire blanket shall be provided with a storage pouch, mounted to the wall conveniently located and identified as a fire blanket.
  - 4.5.a.1. The fire blanket shall meet CRR 16 part 1610 standard for flammability of clothing.
  - 4.5.a.2. The blanket shall be approximately 62 inches X 80 inches.
- 4.5.b. An evacuation aid shall be provided with a storage pouch mounted to the wall conveniently located and identified as a drag blanket and constructed with fire-resistant material.
  - 4.6. Heaters. (See Heaters in the School Bus Body section.)
- 4.6.a. Bus bodies shall have a minimum of one heat exchanger in the rear section behind the rear wheel housing of the bus. The heater shall be on the left or right hand rear wall of the bus.
  - 4.7. Identification.
- 4.7.a. Specially equipped school buses shall display the International Symbol of Accessibility below the window line.
- 4.7.b. Such emblems shall be white on blue or black background, shall not exceed 12 inches square in size, and shall be of a high-intensity, retro-reflective material meeting the requirements of Federal Highway Administration (FHWA) FP-85, Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects.
  - 4.8. Passenger Capacity Rating. (See Certification in School Bus Chassis section.)
  - 4.9. Power Lift.
    - 4.9.a. The power lift shall be located on the right side behind the rear wheel of the bus body.
- 4.9.b. All specially equipped school buses shall provide a level-change mechanism or boarding device, complying with section 4.9.c, with sufficient clearances to permit a wheelchair user to reach a securement location.
  - 4.9.c. Vehicle lift and Installation.
- 4.9.c.1. Vehicle lifts and installations shall comply with the requirements set forth in FMVSS 403, Platform Lift Systems for Motor Vehicles, and FMVSS 404, Platform Lift Installations in Motor Vehicles.
- 4.9.c.1.A. The lift system must be made to prevent accidental brake application while the bus is in motion.

- 4.9.c.1.B. The lift activation switch shall be green in color or outlined in green.
- 4.9.c.2. The design load of the lift shall be at least 1000 pounds.
- 4.9.c.2.A. Working parts, such as cables, pulleys, and shafts, which can be expected to wear and upon which the lift depends for support of the load, shall have a safety factor of at least six, based on the ultimate strength of the material.
- 4.9.c.2.B. Non-working parts, such as platform, frame, and attachment hardware that would not be expected to wear, shall have a safety factor of at least three, based on the ultimate strength of the material.
  - 4.9.d. Lift Capacity.
- 4.9.d.1. The lifting mechanism and platform shall be capable of operating effectively with a wheelchair and occupant mass of at least 1000 pounds.
  - 4.9.d.2. For controls. (See 49 CFR 571.403, S6.7, Control systems.)
  - 4.9.d.3. Emergency operations. (See 49 CFR 571.403, S6.9, Backup operation.)
- 4.9.d.3.A. If an override switch is utilized as part of the backup system, it must be designed to prevent accidental activation.
  - 4.9.d.4. Power or equipment failures. (See 49 CFR 571.403, S6.2.2, Maximum platform velocity.)
  - 4.9.d.5. Platform barriers. (See 49 CFR 571.403, S6.4.7, Wheelchair retention.)
- 4.9.d.6. Platform surface. (See 49 CFR 571.403, S6.4.2, S6.4.3, Platform requirements; see also Wheelchair or Mobility Aid Envelope figure at the end of this subsection.)
- 4.9.d.7. Platform gaps and entrance ramps. (See 49 CFR 571.403, S6.4.4, Gaps, transitions and openings.)
  - 4.9.e. Platform deflection. (See 49 CFR 571.403, S6.4.5, Platform deflection.)
  - 4.9.f. Platform movement. (See 49 CFR 571.403, S6.2.3, Maximum platform acceleration.)
  - 4.9.g. The lift shall permit outboard facing of a wheelchair and mobility aid users only.
- 4.9.h. Note: This item refers to equipment specifications. (Also see section, Transportation for Students with Disabilities and Special Health Care needs, Subsection D, Special Equipment Use and Operation, for applicable operational procedures stating that "During lift operations-[including manual] no one shall be allowed to stand on the lift platform.")
  - 4.9.i. Handrails. (See 49 CFR 571.403, S6.4.9, Handrails.)
  - 4.9.j. Circuit breaker. A resettable circuit breaker shall be installed between the power source and

the lift motor. It shall be located as close to the power source as possible, but not within the passenger/driver compartment.

- 4.9.k. Excessive pressure. (See 49 CFR 571.403, S6.8, Jacking prevention.)
- 4.9.I. Documentation. The following information shall be provided with each vehicle equipped with a lift:
- 4.9.l.1. a phone number where information can be obtained about installation, repair, and parts. Detailed written instructions and a parts list shall be available upon request.
- 4.9.l.2. detailed instructions regarding use of the lift shall be readily visible when the lift door is open, including a diagram showing the proper placement and positioning of wheelchair/mobility aids on the lift.
- 4.9.m. Training materials. The lift manufacturer shall make training materials available to ensure the proper use and maintenance of the lift. These may include instructional videos, classroom curriculum, system test results, or other related materials.
- 4.9.n. Identification and certification. Each lift shall be permanently and legibly marked or shall incorporate a non-removable label or tag that states it conforms to all applicable requirements of the current National School Transportation Specifications and Procedures. In addition, the lift manufacturer or an authorized representative shall provide a notarized Certificate of Conformance, either original or photocopied, which states that the lift system meets all the applicable requirements of the current National School Transportation Specifications and Procedures.
  - 4.10. Restraining Devices, Passenger Seats.
- 4.10.a. Seat frames shall be equipped with attachments or devices to which belts, restraining harnesses, or other devices may be attached.
  - 4.10.b. Attachment framework or anchorage devices, if installed, shall conform with FMVSS 210.
  - 4.11. Seating Arrangements.
- 4.11.a. Flexibility in seat size and spacing to accommodate special devices shall be permitted due to the constant changing of passenger requirements. All seating shall be forward facing.
  - 4.11.b. A decal shall be installed on the inside of the bus that gives proper seat spacing specifications.
  - 4.12. Special Service Entrance.
- 4.12.a. The opening, with doors open, shall be of sufficient width to allow the passage of wheelchairs. The minimum clear opening shall be 43 inches in width, and 57 inches in height. Entrance shall be of sufficient width and depth to accommodate various mechanical lifts and related accessories as well as the lifting platform.
  - 4.12.b. A drip molding shall be installed above the opening to effectively divert water from entrance.

- 4.12.c. Door posts and headers for entrance shall be reinforced sufficiently to provide support and strength equivalent to the areas of the side of the bus not used for service doors.
  - 4.13. Special Service Entrance Doors.
    - 4.13a. All doors shall open outwardly.
    - 4.13.b. Lift doors shall have devices to hold doors in the open position.
- 4.13.c. All doors shall be weather sealed. On buses with double doors, the doors shall be so constructed that a flange on the forward door overlaps the edge of the rear door when closed.
- 4.13.d. Door materials, panels, and structural strength shall be equivalent to the conventional service and emergency doors. Color, rub rail extensions, lettering, and other exterior features shall match adjacent sections of the body.
  - 4.13.e. Lift door shall have a window within one inch of the lower line of the adjacent sash.
- 4.13.f. Door(s) shall be equipped with a device that will actuate a flashing visible signal located in the operator's compartment when a door(s) is not securely latched or open in any position other than locked and ignition is in "ON" position.
- 4.13.g. A switch shall be installed so that the lifting mechanism will not operate when the lift platform door(s) is closed.
  - 4.13.h. When the frame mounted power lift is used, door panels shall extend to bottom of body skirt.

### 5. Specifications for Multi-Functional School Activity Bus (MFSAB).

The vehicle must comply with the Definition of a Multifunction School Activity Bus (MFSAB) in the FMVSS as listed in 49 CFR Part 571, which is the National Highway Traffic Safety Administration's Final Rule on this vehicle. The primary purpose of this vehicle is to transport children, and as such, it must comply with all applicable FMVSS, Americans with Disabilities Act of 1990 (ADA), and other standards for this type of vehicle including the West Virginia Minimum School Bus Specifications. It must be purchased or leased as a new bus and may only be used for extra-curricular activities. These buses may not be used to transport students to and from schools or between schools for the purpose of attendance. In addition, the vehicle must have been inspected and received a satisfactory evaluation from the WVDE. Vehicles shall be of the latest model year in standard production and have parts that are stocked and warranty service that is available at one or more points in West Virginia or border states.

The MFSAB is designed to provide all of the crash safety standards that can be found on a traditional school bus, but without the "flashers and signs" that traditional school buses need for frequent pick-up and drop-off at school bus stops. The vehicle will not have the specialized warning devices such as stop signs and warning lights, and it will not be school bus yellow.

The following exception to the West Virginia Minimum Specifications for School Buses shall be allowed for these vehicles:

COLOR: The local school with school system approval may determine the color of the activity bus. The color scheme may utilize any combination of up to three colors. This combination may be in addition to an optional white roof. The color National School Bus Yellow (SBMTC-008 Publication) shall not be used as a part of the color scheme. School systems and/or vendors shall submit preliminary color schemes to the WVDE, Office of School Facilities and Transportation for approval prior to the purchase or manufacture of an MFSAB.

#### 5.1. Identification.

- 5.1.a. The bus body shall bear the words "ACTIVITY BUS" in a contrasting color at least eight inches in heigh in the area where "school bus" is normally positioned. Lettering and numbering shall conform to FMVSS and West Virginia Minimum Specifications and shall meet reflectivity standards. Bus numbering on this bus may be of a contrasting color.
- 5.1.b. The name of the school system shall be displayed in at least six inch letters on both sides of the bus in the beltline area. No signs or logos shall be applied to any area of the bus including the bumpers. The name of the school may be displayed in the beltline area. No signs, logos, or other items shall be displayed on the windows of the bus.
  - 5.2. Lighting and Warning Devices.
- 5.2.a. All activity buses shall meet state and federal standards for normal school bus lighting and warning device requirements with the following exceptions.
- 5.2.a.1. MFSABs may not be equipped with alternately flashing amber or red signal lamps used for loading and unloading students.
  - 5.2.a.2. MFSABs may not be equipped with stop arm signals or crossing control arms.
  - 5.3. Seat Belts.
- 5.3.a. Three-point lap-shoulder belts will be supplied for any MFSAB with a GVWR of 10,000 pounds and under.
  - 5.3.b. Shoulder belts supplied must be fully retractable and the anchorage must meet FMVSS-210.
  - 5.4. Seating.
    - 5.4.a. All MFSAB buses shall have seats that comply with FMVSS-222.
- 5.4.b. If the GVWR is 10,000 pounds and under, then it must also be equipped with three-point lap-shoulder belts certified to meet appropriate FMVSS standards.
- 5.4.c. School systems and/or vendors shall submit preliminary seating schemes to the WVDE, Office of School Facilities and Transportation for approval prior to the purchase or manufacture of a MFSAB.
  - 5.4.c.1. Successful vendor shall coordinate with the agency issuing the purchase order in the

selection of material and color and type of seats.

#### 6. School Bus Type Definitions.

- 6.1. TYPE A. A conversion or bus constructed utilizing a cutaway front-section vehicle with a left side driver's door. This shall include two classifications: Type A-I, with a Gross Vehicle Weight Rating (GVWR) 14,500 pounds or less; and Type A-II, with a GVWR of greater than 14,500 and less than or equal to 21,500 pounds.
- 6.2. TYPE C. Constructed utilizing a chassis with a hood and front fender assembly. The entrance door is behind the front wheels; it is also known as a conventional school bus. This type also includes a cutaway truck chassis or truck chassis/cab with or without a left side-door and a GVWR greater than 21,500 pounds.
- 6.3. TYPE D. Constructed utilizing a stripped chassis. The entrance door is ahead of the front wheels; it is also known as transit-style school bus or forward control bus.
- 6.4. SPECIALLY EQUIPPED. Designed, equipped, or modified to accommodate students with special needs.

## 7. Specifications for Compressed National Gas (CNG) Buses; CNG – Fuel Conversion.

- 7.1. Conversion and Maintenance.
- 7.1.a. Conversion and maintenance is to be performed only under the supervision of an individual who has satisfactorily completed a training program provided by a CNG original equipment manufacturer.
- 7.1.b. A training program shall involve the mechanics of installation, maintenance, repair, trouble shooting, and safety procedures.
  - 7.2. CNG Vessels on School Bus.
- 7.2.a. Each CNG fuel supply vessel shall be constructed and inspected in accordance with the latest version of the National Fire Protection Association (NFPA) 52 standards.
- 7.2.b. Installation of CNG containers shall comply with FMVSS No. 304, Compressed Natural Gas Fuel Container Integrity.
- 7.2.c. The CNG Fuel System shall comply with FMVSS No. 303, Fuel System Integrity of Compressed Natural Gas Vehicles.
  - 7.3. Mounting Vessels to School Bus.
    - 7.3.a. All safety devices that may discharge shall be vented to the outside of the vehicle.
  - 7.4. Fuel Lines.
- 7.4.a. Fuel lines shall be permanently secured at intervals of not more than two feet with aviation type clamps, and shall be placed in such a manner as to minimize the possibility of damage due to vibrations,

strains, or wear.

- 7.4.b. Any fuel line passing through, under, or over a structural member shall be protected by rubber grommets or tubing. Loops in the fuel lines shall be provided at appropriate stress points.
- 7.4.c. An automatic natural gas shut-off valve or solenoid shall be provided as an integral part of the regulator package assembly.
  - 7.4.d. A manual shut-off valve shall be installed between the vessels and the regulator.
- 7.4.d.1. This shut-off valve shall be readily accessible to the operator, be protected from rocks and other forms of debris, and be on the curb-side of the bus where possible.
  - 7.4.d.2. Such shut-off valve shall be clearly marked with reflective material.
- 7.4.d.3. If access is gained by cutting a hole in the side of the bus, suitable protective material shall be placed around the edge of the hole.
- 7.4.d.4. Wherever possible, the manual shut-off valve should be located as close as possible to the CNG vessels.
  - 7.5. Vehicle Refueling Connection.
- 7.5.a. The fueling systems shall be equipped with a backflow check-valve that will prevent the return flow of gas from vessel(s) to the filling connection.
- 7.5.b. All school buses shall be fitted with a refueling interlock system to prevent the bus from being moved on its own power during a refueling operation.
  - 7.5.c. The fueling connection shall meet the standards of NFPA 52.
  - 7.5.d. The filler hose vent valve on the refueling probe shall be directed away from the operator.
  - 7.6. Labeling Required.
- 7.6.a. CNG vessel area labels showing CNG vessel I.D., hydrostatic test data, and CNG vessel master manual shut-off valve location are required.
- 7.6.b. Engine compartment labels to include CNG warning and instructions to mechanics including the following:
  - 7.6.b.1. CNG fueled vehicle.
  - 7.6.b.2. system service pressure.
  - 7.6.b.3. installer's name or company.
  - 7.6.b.4. vessel retest date(s) or expiration.

- 7.6.b.5. total vessel water volume in gallons (liters).
- 7.7. CNG Equipment.
- 7.7.a. Manufacturers wishing to deal in CNG equipment in West Virginia must meet all applicable federal and state requirements.
  - 7.8. Limit of Flammability.
- 7.8.a. Natural gas introduced into any system covered by this standard shall have a distinctive odor potent enough for its presence to be detected down to a concentration in air of not over 1/5 of the lower limit of flammability.
- 8. Specifications for Liquefied Petroleum Gas (LPG) Buses.
  - 8.1. LPG Vessels on School Buses.
- 8.1.a. The fuel system shall comply with the latest version of NFPA 58 Liquefied Petroleum Gas Code. The fuel system integrity shall meet the specified leakage performance standards when impacted by a moving contoured barrier in accordance with test conditions specified in FMVSS 301 and Commercial Motor Vehicle Safety Standards (CMVSS) 301.1 Fuel System Integrity for Liquefied Petroleum Gas.
  - 8.1.b. Propane valves shall be protected by guards or expanded steel grating.
  - 8.1.c. Steel vessels must have protective paint coating.
  - 8.1.d. A manual shut-off valve for maintenance shall be installed.
- 8.1.d.1. This valve shall be accessible to the operator, be protected from rocks and other forms of debris, and be located on the curb-side of the bus where possible.
  - 8.1.d.2. The valve location shall be clearly marked on the side of the bus.
  - 8.1.d.3. Wherever possible, the valve should be located as close as possible to the LPG vessels.
  - 8.2. Fuel Lines.
    - 8.2.a. Fuel lines shall be permanently secured at intervals of not more than two feet.
- 8.2.b. Fuel lines shall be placed in such a manner as to minimize the possibility of damage due to vibrations, strains, or wear.
- 8.2.c. A fuel line passing through, under, or over a structural member shall be protected by grommets or tubing.
  - 8.3. Fuel System Filtration.

- 8.3.a. Fuel filter shall be a high-capacity, high-flow LPG specific filter which is rated at five microns.
- 8.4. Venting.
- 8.4.a. All safety devices that discharge to the atmosphere shall be vented to the outside of the vehicle.
- 8.4.b. The discharge line from the safety relief valve on all school buses shall be located at the rear of the vehicle on the driver's side with the relief nozzle pointing to the ground.
  - 8.2.c. Discharge lines shall not pass through the passenger compartment.
  - 8.5. Vehicle Refueling Connection.
- 8.5.a. The vehicle shall be equipped with a receptacle with Aerospace Civil and Mechanical Engineering (ACME) thread and dust cap.
- 8.5.b. The fueling systems shall be equipped with a backflow check-valve that will prevent the return flow of propane fuel.
  - 8.5.c. The fueling connection shall meet the standards of the latest version of NFPA 58.
  - 8.6. Labeling Required.
- 8.6.a. Propane vessel shall be labeled per American Society of Mechanical Engineers (ASME) requirements.
- 8.6.b. Engine compartment labels are to include LPG warning and instructions to mechanics including the following:
  - 8.6.b.1. system service pressure.
  - 8.6.b.2. installer's name or company.
  - 8.7. LPG Equipment.
- 8.7.a. Manufacturers wishing to deal in LPG equipment in West Virginia must meet all applicable federal and state requirements.
  - 8.8. Engine.
    - 8.8.a. Engine retarder is not required.
    - 8.8.b. An idle limiter is not required.
    - 8.5.c. Warranty for the engine shall be a minimum five years/100,000 miles.

- 8.9. Transmission.
  - 8.9.a. Allison 2300 series is acceptable.
  - 8.9.b. Ford 6R140 is acceptable.
  - 8.9.c. Retarder is not required.
  - 8.9.d. Synthetic fluid is not required.
  - 8.9.d. Warranty shall be a minimum of five years/100,000 miles.
- 8.10. Differential.
  - 8.10.a. A limited slip differential is acceptable.
- 8.11. Air Compressor.
  - 8.11.a. The air compressor shall be rated at a minimum of 13.2 CFM.
- 8.12. Block Heater.
  - 8.12.a. A block heater is not required.
- 8.13. Exhaust System.
- 8.13.a. The exhaust system shall meet the manufacturer's specification but shall be flush with the body and not exceed one inch outside the bus body.

#### **APPENDIX A**

## [Insert county board.] PRESCRIPTION AND OVER-THE-COUNTER MEDICATION POLICY TEMPLATE

#### **Purpose**

The National Transportation Safety Board (NTSB) issued a directive to the Federal Transit Administration (FTA) to educate service agencies on the potential safety risks associated with the use of prescription (Rx) and over-the-counter (OTC) medications by employees who perform safety sensitive functions.

In the interest of complying with this directive and protecting employees and others, the West Virginia Department of Education (WVDE) has developed this Rx/OTC policy template for use by county boards. County boards are encouraged to use this template to adopt their own policy. All safety-sensitive employees must make sure that any prescribed drug, any over-the-counter medication, or combination of drugs being taken will not adversely impact their job performance. The employee must inform the prescribing medical practitioner of the employee's job duties performed and the medical practitioner must approve the medications to ensure that the employee's job duties can be performed safely.

## Applicability.

This Rx/OTC policy shall apply to all school bus operators, mechanics, aides, and county directors.

The procedure set forth herein applies only to medications that are to be taken or that would have an effect while at work.

### **Prescription Medications.**

The appropriate use of legally prescribed medications is not prohibited.

Employees have the responsibility to discuss the potential effects of any prescription medication with the prescribing medical practitioner including its potential to impair mental functioning, motor skills, or judgment.

Employees must refrain from performing any safety sensitive duties any time their ability to safely perform their job duties is adversely impacted using a prescription medication.

A legally prescribed drug means the employee has a prescription or other written approval from a medical practitioner for his/her use of a drug in the course of medical treatment. The written statement must include the employee's name, the name of the substance, quantity/amount to be taken, and the period of authorization.

The misuse or abuse of prescription medications is prohibited. Examples of misuse and/or abuse include:

- a) use of a medication that is not prescribed by the employee;
- b) the employee exceeds the prescribed dosage;

- use of any medication that contains alcohol within four hours of performing safety-sensitive functions; and
- d) use of any prescription medications that adversely impacts the employee's ability to safely perform his/her assigned duties;

The WVDE requires that all safety sensitive employees obtain a statement from their medical practitioner for each medication prescribed indicating whether the employee should be medically disqualified from performing safety-sensitive functions during the duration of the treatment.

The statement must be provided to the county where it will be kept in the employee's confidential medical file.

#### **Over-the-Counter Medications**

The misuse or abuse of OTC medications is prohibited. Examples of misuse and/or abuse include:

- a) use of any medication that contains alcohol within four hours of performing safety-sensitive functions;
- b) use of any OTC that adversely impacts the employee's ability to safely perform his/her job duties;
- c) using an OTC for other than its intended purpose; and
- d) exceeding the recommended dosage.

The WVDE requires that all safety-sensitive employees obtain a statement from their medical practitioner or pharmacist for each OTC used that has a warning label or caution that indicates that mental functioning, motor skills, or judgment may be adversely affected.

As an example, the warning label might indicate, "May cause drowsiness. Use care when operating a car or heavy machinery."

The statement should indicate whether the employee should be medically disqualified from performing safety-sensitive functions during the duration of the treatment.

The statement must be provided to the county board where it will be kept in the employee's confidential medical file.

## Medical Disqualification.

Ultimately, the employee is the best judge of how a substance is impacting him/her.

As such, the employee has the responsibility to inform the medical practitioner/pharmacist of performance altering side effects and request medical disqualification from performance of his/her duties.

The employee is encouraged to discuss/consider alternative treatments that do not have the performance altering side effects.

An employee will be medically disqualified from the performance of safety-sensitive functions if the medical practitioner/pharmacist determines that the side effects of the medication being taken pose a potential threat to the safety of co-workers, the public, and/or the employee.

The medical practitioner/pharmacist determination is subject to review by the WVDE or county board physician (physician).

The physician may consult with the medical practitioner/pharmacist to obtain additional information as necessary. Based on the information provided, the physician may determine that the employee should be medically disqualified.

The physician's decision will be deemed final.

The medical practitioner/pharmacist statements and any other medical information obtained through this process are confidential information and will be maintained in confidential medical files in the county board office.

#### **Procedural Guidelines.**

The employee has the responsibility to assess his/her fitness for duty while using Rx/OTC prescription medication.

The employee has the following responsibilities:

- a) to discuss the potential effects of any OTC drug with a medical practitioner or pharmacist, including any adverse impact on the safe performance of his/her job duties. The employee is encouraged to discuss with his/her medical practitioner/pharmacist alternative treatments that do not have performance altering side effects;
- b) to inform the medical practitioner/pharmacist of performance altering side effects experienced and request medical disqualification from the performance of safety-sensitive job duties;
- c) must have the medical practitioner/pharmacist determine if he/she should be medically disqualified from the performance of safety-sensitive job duties based on the side-effects of the OTC; and
- d) must request the medical practitioner/pharmacist to complete a statement indicating whether or not the employee should be medically disqualified, and if so, the duration of the disqualification.

Employees are required to provide the medical practitioner/pharmacist statement to their employer.

The employee must notify his/her immediate supervisor of the duration of his/her medical disqualification. The employee will be immediately removed from duty.

Employees will be allowed to use their accumulated sick leave, personal time, and/or vacation for the duration of the medical disqualification.

A list of medications that are of the greatest concern may be obtained from the county board or the WVDE

Office of School Facilities and Transportation.

The list of medications will be provided as a guide only and should not be considered all-inclusive.

Use of the list of medications to identify potential problematic medications does not exempt the employee from the process as defined herein, but should be used to trigger more in depth discussions with the medical practitioner/pharmacist.

## **Consequences of Policy Violation.**

An employee who fails to report the use of an Rx/OTC medication or who performs safety-sensitive functions when his/her performance is being adversely impacted by an OTC medication will be subject to the following discipline.

Failure to Report (First Offense)	[Insert county disciplinary action here.]
Failure to Report (Second Offense)	[Insert county disciplinary action here.]
Performance of safety-sensitive function when adversely impacted by OCT medication.	[Insert county disciplinary action here.]
Falsification of medical practitioner/pharmacist statement.	Discharge

#### **FISCAL NOTE FOR PROPOSED RULES**

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IV	μE	OI	Ru	E.

XX Legislative

☐ Interpretive

☐ Procedural

Agency: West Virginia Department of Education
Address: Thomas L. Young, Executive Director

Office of School Facilities and Transportation

1900 Kanawha Boulevard, East, Building 6, Room 308

Charleston, WV 25305

Phone Number: <u>304-558-2711</u>

Email: tommy.young@k12.wv.us

## **Fiscal Note Summary**

Summarize in a clear and concise manner what impact this measure will have on costs and revenues of state government.

No costs or revenue will be impacted by the proposed amendment of W. Va. 126CSR92, Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses.

## **Fiscal Note Detail**

Show over-all effect in Item 1 and 2, and in Item 3, give an explanation of breakdown by fiscal year, including long-range effect.

Fiscal Year				
Effect of Proposal	Current Increase / Decrease (use "-")	Next Increase / Decrease (use "-")	Fiscal Year (Upon Full Implementation)	
1. Estimated Total Cost	\$0.00	\$0.00	\$0.00	
Personal Services	\$0.00	\$0.00	\$0.00	
Current Expenses	\$0.00	\$0.00	\$0.00	
Repairs & Alterations	\$0.00	\$0.00	\$0.00	
Assets	\$0.00	\$0.00	\$0.00	
Other	\$0.00	\$0.00	\$0.00	
2. Estimated Total Revenues	\$0.00	\$0.00	\$0.00	

Rule Title: W. Va. 126CSR92, Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses

**3. Explanation of above estimates (including long-range effect).** Please include any increase or decrease in fees in your estimated total revenues.

No costs or revenue will be impacted by the proposed amendment of W. Va. 126CSR92, Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses.

## Memorandum

Please identify any areas of vagueness, technical defects, reasons the proposed rule **would not** have a fiscal impact, and/or any special issues **not** captured elsewhere on this form.

No costs or revenue will be impacted by the proposed amendment of W. Va. 126CSR92, Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses.

Signature of Agency Head or Authorized Representative

Date

# Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses

## **COMMENT RESPONSE FORM**

Comment Period Ends:		
<b>NOTICE:</b> Comments, as submitted, shall be open for public inspection and copying for	· ·	
The following form is provided to assist t School Bus Transportation Regulations, Pr School Buses. Additional sheets may be at	ocedures, and Specifications f	•
Name:	Organization:	
Title:		
City:	_ State:	
Please check the box below that best described	rihes vour role	
☐ Superintendent	☐ Higher Educator	□ Parent/Family
☐ Principal	☐ Teacher	☐ Community Member
☐ Professional Support Staff		
CON	MENTS/SUGGESTIONS	
§126-92-2. Purpose.		
§126-92-3. Bus Passenger Regulations.		
§126-92-4. Regulations for Students Tra	nsported on Buses.	
§126-92-5. Regulations for Transporting	Students with Disabilities Rec	quiring Special Transportation.
§126-92-6. Regulations for Transporting	Homeless Students.	
§126-92-7. Student Conduct on Buses.		
§126-92-8. Procedures for Disciplining S	tudents Transported by Buses	i.

# Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses

## **COMMENT RESPONSE FORM**

§126-92-9. Medical Exclusion of Students from a Bus.
§126-92-10. General Operating Procedures.
§126-92-11. Bus Stop Locations.
§126-92-12. Loading and Unloading of Student Passengers and Railroad Crossings.
§126-92-13. Idling of Buses at Schools and School Functions (W. Va. Code §17C-12-7).
§126-92-14. Guidelines for Curricular and Extra-curricular Trips.
§126-92-15. Guidelines for Bus Routing.
§126-92-16. Operator Assignments.
§126-92-17. Criteria for the Certification of Operator Candidates and Contract Operators.
§126-92-18. Physical Qualifications for Operators.
§126-92-19. Physical Examination for Operators and Contract Operators.
§126-92-20. Responsibilities of Certified Operators for Renewal of Certification.
§126-92-21. Reasons for Suspension, Revocation, or Non-renewal of Certification of Operators.
§126-92-22. Procedures for Due Process on the Suspension, Revocation, and Recall of Operator's Certification and Establishment of the Operator Review Panel.

## Policy 4336, West Virginia School Bus Transportation Regulations, Procedures, and Specifications for the Design and Equipment of School Buses

## **COMMENT RESPONSE FORM**

§126-92-23. School Bus Operator Safe Drivers' Programs.	
§126-92-24. School Bus Operator Inspection of School Bus.	
§126-92-25. County Bus Transportation and Maintenance Systems.	
§126-92-26. Inspection and Maintenance of Buses.	
§126-92-27. Incorporation by Reference West Virginia Minimum Rec Equipment of School Buses.	quirements for Design and
§126-92-28. Severability.	
West Virginia Minimum Requirements for Design and Equipment of School Bu (Please identify section prior to comment.)	uses
APPENDIX A – Prescription and Over-the-Counter Medication Policy Te	emplate

## Please direct all comments to:

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Office of School Facilities and Transportation
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